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Maine: Fifty Years of Change 1940–1990

PREPARED
by the University of Maine
with the Maine State Planning Office
and the State Employment and Training Council
of the Maine Department of Labor

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TRANSMITTAL

In January of 1981 we initiated a Partnership Agreement encouraging greater use of University faculty and staff resources by Maine State government. As part of this effort, professionals within the University and state agencies participated with individuals from the private sector in two conferences: the first concerned major economic, social and political trends in Maine, and the second developed a forecast for the Maine economy from 1980 to 1990.

This publication contains the source materials and results of these two efforts to understand Maine. We wish to thank the writers and other participants for this successful collaborative effort involving many specialists and administrators from the State and from our college campuses. We hope this publication, *Maine: Fifty Years of Change, 1940- 1990,* receives a wide readership, for, although none of us will agree with every expressed thesis or conclusion, all of us in Maine will find this up-to-date analysis both thoughtful and useful.

Signed:

Joseph E. Brennan, Governor
State of Maine

Patrick E. McCarthy, Chancellor
University of Maine

Robert L. Woodbury, President
University of Southern Maine

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MAINE: FIFTY YEARS OF CHANGE
1940–1990

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BACKGROUND & ACKNOWLEDGEMENTS

In January 1981 Governor Joseph E. Brennan, with University of Maine Chancellor Patrick E. McCarthy and University of Southern Maine President Robert L. Woodbury, initiated a Partnership Agreement to encourage greater use of faculty and staff at our institutions of higher learning. As part of that effort, the University of Maine and the State Planning Office arranged two conferences. The first, a History Conference entitled *Maine: Fifty Years of Change 1940-1990,* held February 13, 1982 in Augusta, coincided with the development by the State Planning Office of an economic forecasting model for the State, and was designed to provide qualitative input into that quantitative forecasting model. The second, a Forecasting Conference, held in August of 1982, merged the work of both projects.

Publication of the two Conference proceedings in this volume, *Maine: Fifty Years of Change,* was directed by Allen Pease, Director of the Partnership Program, and Wilfred Richard, of the State Employment and Training Council. Although State government, with its responsibility to prepare economic projections and address public issues, will be the primary user, wide distribution of these Conference proceedings should increase public understanding of Maine's potential opportunities as well as of its potential problems. We hope Maine's secondary and post-secondary classrooms, local government, and civic organizations will participate in the debate about the state's future.

The day-long February Conference assembled, by invitation from the Governor, eighty-seven persons knowledgeable about Maine's social, governmental, and economic developments. The Conference agenda, participants and workshop results can be found in the Appendix. The conference discussed major historical trends and suggested how these trends have interacted with changes in attitudes, lifestyles, technology, population, the national economy, and resources and energy supply. Public policy issues that should be addressed or understood in the State of Maine during the next ten years were identified.

The group responsible for organizing the February History Conference included Richard Barringer, Director, and Lloyd Irland, State Economist, of the State Planning Office. From the University of Maine at Orono were James Horan, Associate to the President; Frederick Hutchinson, Vice President for Research and Public Service; Arthur Johnson, Director of the Balanced Growth Project; and Kenneth Palmer, Chairman of the Political Science Department. From the University of Southern Maine were Robert J. Goettel, Director, Center for Research and Advanced Study; Allen Pease, Director, State/University Partnership Program; Stephen Simonds, Director, Human Services Development Institute, Center for Research and Advanced Study; and Carl Veazie, Senior Economist, Center for Research and Advanced Study.

The History Conference proceedings, comprising Chapters I, II, III, IV and V of this book, were submitted to the Maine Forecasting Advisory Committee chaired by Wilfred Richard of the State Employment and Training Council to assist in organizing the Forecasting Conference. The Advisory Committee included representatives from the State's energy, taxation, human services, planning, agriculture, fisheries, education, labor, and waterways departments, divisions, bureaus and offices; and from the private sector's energy, utility, electrical manufacturing, leather, metal manufacturing, finance, paper, and transportation manufacturing industries. The Committee representatives, a complete list of which is contained in the Appendix, enhanced the partnership between industry, business, government and academia. The forecating model and analysis were published in *The Maine Economy: A Forecast to 1990.*

On August 4, 1982, a Forecasting Conference was held at the Augusta Civic Center to discuss drafts of both *Maine: Fifty Years of Change* and *The Maine Economy: A Forecast to 1990.* About fifty attendees from business, industry, government and academia provided valuable insights to the authors of each report. While *Maine: Fifty Years of Change* was examined for rewriting that had been done since January 1982, the forecast was examined to see how well the latter succeeded in giving specificity to the general trends and issues identified in the former. The two publications have been merged in this volume, *Maine: Fifty Years of Change 1940–1990.* The agenda, participants and other conference proceedings are set forth in the Appendix.

Chapter I includes a brief description of the conferences and a summary of historical trends written by Allen Pease.

Chapters II, III and IV represent three Working Papers prepared for the History Conference by about thirty subject matter specialists who volunteered this considerable contribution without financial compensation. Writers from five Maine campuses—public and private—and several State agencies spent hundreds of hours in this effort to lend academic expertise to the needs of State government. Together these Papers represent a working draft of importance to Maine. They set forth current analyses and planning issues for Maine's future based on the perspective of history.

Carl Veazie, Senior Economist at the Center for Research and Advanced Study, University of Southern Maine, wrote the essay on Economic Development and also prepared several pages of graphs showing recent trends. This is reproduced as Chapter II.

Stephen Simonds, Director of the Human Services Development Institute at the Center for Research and Advanced Study at the University of Southern Maine, coordinated and edited Chapter III on Social Development with Jean McManamy, also from the Center for Research and Advanced Study. There were many contributors to this Chapter. Most wrote sections receiving varying degrees of editing to conform to style and space constraints. Others con-

tributed their ideas or reactions through conversation with the editors. These contributors are acknowledged with appreciation and apologies for editorial license:

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University of Southern Maine.

The agenda for the eighties in Chapter V is an essay by Professor Arthur Johnson summarizing the economic, social, and political issues identified in the previous three chapters and at the February History Conference.

Chapters VI and VII were prepared by Maureen Byrne from *The Maine Economy: A Forecast to 1990,* written by Charles Lawton, Lloyd Irland, Charles Colgan, and Richard Sherwood, with programming by Robert Mayer and graphics by Richard Kelly.

Chapter VI highlights and summarizes projections developed by the State Planning Office through the Maine Economic Policy Analysis Model and with the aid of the Maine Forecasting Advisory Committee. Specific projections are made to 1990 in the areas of energy, population, income, employment and patterns of regional growth.

Chapter VII summarizes major issues identified by both the *Maine: Fifty Years of Change* conference and trends projected by *The Maine Economy: A Forecast to 1990.*

Some of the projections in the last two chapters are different from those referred to in earlier chapters. This reflects the refinement of national forecast assumptions as they were applied to the Maine economy through the Maine Economic Policy Analysis Model.

The Appendix presents details of the history and forecasting conferences. Arthur Johnson was primarily responsible for discussing the workshops and the questionnaire which was used to poll conference participants on key issues.

Charts and graphs were drafted in printed form by Richard Kelly, State Planning Office, who also, along with Brian Kent, prepared the cover design. A number of typists and secretaries within the University system and State agencies contributed to the Conference and preparation of materials, particularly Nancy Valley, State Planning Office; Donna Roberts and Karen Norton of the Center for Research and Advanced Study; and Celeste Haefele of the State Employment and Training Council. Special thanks are extended to Chrystal Pomroy who prepared the draft for submission to the University of Maine Press.

There are a number of other persons who deserve recognition for their participation including the workshop recorders from the State Planning Office—Charles T. Lawton, Denise Lord, Frank O'Hara, and Richard Sherwood. Most appreciatively the Planning Group acknowledges the leadership provided to the Conference by these University of Maine administrators: Patrick E. McCarthy, Chancellor; Robert B. Binswanger, Vice Chancellor; Constance Carlson, President, University of Maine at Presque Isle; Paul H. Silverman, President, University of Maine at Orono; and Robert L. Woodbury, President, University of Southern Maine.

The editors and coordinators of the Conference must take responsibility for organizing and assigning the subject. However, writers on each topic are responsible for their emphasis and interpretation.

The editors wish to thank all participants and sponsors for their support. Despite some unevenness resulting from the collaboration of many authors, we believe the analyses of Maine and the identification of issues to be addressed presents a provocative and useful guide for makers of public policy during the next decade.

Allen Pease and
Wilfred Richard, editors
February, 1983

CHAPTER I
AN ERA OF DYNAMIC CHANGE
Introduction to the Conferences
Trends from 1940–1980

A. INTRODUCTION TO THE CONFERENCES

Although Mainers are sometimes accused of being traditionalists who look to the past instead of to the future, there is ample evidence of long-standing concern for the state's future direction. This concern has accelerated during the past decade. In the mid-1930's, the Maine State Planning Board published a seminal study of Maine's resources and prospects; the creation of a state planning office in 1968 marked institutional recognition of the fact that the future need not be approached mindlessly. The work of the Commission on Maine's Future in the mid-1970's, as well as studies by members of academic institutions and consultants inside and outside the state, have provided a continuing review of where the state has been and where it may be going.

The specific incentive for a conference on Maine history and a forecasting conference grew out of the State Planning Office's desire for some qualitative inputs to the innovative quantitative forecasting model that it began developing in 1981. This need happened to coincide with the initiation of a Partnership Program between state government and the state university system which intended to utilize the expertise available from various campuses in resolving current and future state problems, as well as to develop opportunities for constructive collaboration.

The fifty-year perspective of the study was chosen because 1940 was the year that the country, and Maine, were beginning to emerge from a decade-long economic and social depression. The terminal date of 1990 was chosen because it is the most distant date about which anyone felt comfortable making even carefully qualified predictions. Since the nation is undergoing a major redefinition of the roles of federal and state government, 1982 was a propitious time to examine retrospectively and prospectively a half-century of Maine experience.

The two conferences represented quite different ways of predicting the future. The February history conference presented the collective judgements of knowledgeable persons about recent trends and future issues. This approach encouraged participants to speculate on social, cultural and political activities as well as on economic matters. The August forecasting conference used an econometric projection as the basic means for predicting Maine's future. The strength of this forecasting method is its reliance on quantitative data and the ability to use the model to understand implications of several alternative futures on Maine's population, jobs and income.

The remainder of this chapter is an historical essay that summarizes the economic, social and political trends from 1940 to 1980 that writers and participants documented in the two conferences and subsequent chapters of this study.

B. TRENDS FROM 1940-1980

Changes in Maine since 1940 have been both rapid and profound, perhaps the most unsettling of any equivalent time span. Just as global events affect the United States, we in Maine are linked to the fortunes of our sister states and fellow Americans. The 1940- 1980 period saw us move from a depression to economic prosperity, and then to today's troubled economy. The nation endured the trauma of three shooting wars and numerous treaty alliances which tied our national interest to the non-Communist nations of Europe, America, the Near East and Asia.

At home the national government expanded its policy role and legislated efforts to assist and integrate Americans of all regions, races and incomes. Like the nation and world, Maine struggled to make social and economic adjustments mandated by modern science and new inventions. Intensive exploitation of non-renewable resources threatened the ability of this country and of the whole earth to sustain the food and material progress achieved. Most critical to understanding events, major changes occurred in the character of Maine's population. Migration, the aging of the population, work force shifts and new attitudes have made Maine what it is—as well as influenced the future.

Postwar America saw increased concentration of corporate power. At the same time, universities provided a stream of managers whose career interests in business were often quite separate from those of the stockowners. Capital investment was derived increasingly from pension plans and insurance company funds rather than from personal savings. This contributed to the increase in size of corporations.

Mainers' love affair with the automobile made possible travel from suburban homes to work, vacations, schools and newly created shopping centers. Small shops and stores turned for survival to speciality lines and odd-hour operations as more and more restaurants, motels and retail services became chain or franchise-operated. The sameness of this national service society

created a reaction—a counterculture with an underground economy that avoided credit cards and consumer materialism.

Many other changes during the last forty years resulted from the unprecedented postwar wave of technology. Jet planes, television, nuclear power, recreation vehicles, synthetics, air conditioning, central heating, space flights, teaching machines, computers, stereophonic sound, cable TV and a host of electrically powered appliances both enhanced and upset our lifestyle. Medical advances and labor saving devices have extended the span of life itself.

The impact of this technological revolution has been dramatic. Oil and gas consumption have both polluted the air and threatened consumers with shortages and high energy costs. Over-dependence on high technology and high energy consumption caused many people to urge resource conservation, use of soft energy sources, and scaled-down living. Two national recessions in the 1970's and several major studies of the future have shocked many into questioning the prospects and limits of future economic growth. However, despite problems, the average American's real per capita income increased during most of the 1940–1980 era. The average Maine family is much better off materially in 1980 than in 1940; but, Mainers are concerned about their material and spiritual futures.

The Economy

From 1940 to 1980, the Consumer Price Index rose five times, while per capita income in Maine rose fourteen times during those years. In terms of real buying power, Maine's per capita disposable income, $6,733 in 1980, has more than doubled from 1940. Clearly, Maine people shared in national economic growth but as in 1929 and 1940 still lagged in 1980 at the same 80-85 per cent of the U.S. average. Significantly, because of inflation, disposable personal income (real income to purchase goods) did not increase for many families after 1976. This helps explain increased resistance to State, local or federal tax increases. It also helps explain current pessimism about our economic future.

The next sections summarize the major economic, social and political trends as identified by Conference historians and participants.

The economic analysis presented in Chapter Two identifies many specific changes in Maine's economy. Six major trends are listed here.

1. Although Maine's economy is more diversified than it was in 1940, it is still colonial in that Maine produces food and raw materials for use elsewhere and is dependent on out-of-state manufacturers for most consumer goods. Most of the capital invested in Maine is generated outside the State.
2. Maine's resource-based industries of forestry, agriculture, tourism, fisheries and minerals account for only about 18 per cent of Maine's economy. Agriculture, particularly potatoes and broilers, is a declining industry.

3. "Export" industries of nondurable manufacturing, defense industries, insurance carriers and metals and machinery also amount to about 18 per cent of the State's economy. Within this group, the traditional industries of shoes and textiles have declined.
4. Industries primarily servicing Maine residents represent two-thirds of Maine's economy and its fastest growing sector. Included are civilian government, services, trade, transportation, utilities, construction, finance, real estate, printing and paving products. Each of these service industries has been growing, with professional, repair, recreational and business services being the most rapidly expanding activities.
5. Although seldom advertised by government development agencies or admitted by business, lower-than-average labor costs in most industries represent one of the most attractive factors in Maine's competitive position in attracting industry. The quality of Maine labor is also considered high in terms of stability and productivity.
6. The 1940 to 1980 period has seen a rapid rise of State and local government attempts to develop a strong and diversified economy. Public investment, both in physical infrastructure and in people (education, health, social services) has increased, but still has not always been competitive with other states.

Social Changes

During these last forty years, American society underwent radical change. During the Vietnam War period, New Left and Black Power rebellions reflected the Woodstock generation's disillusionment with conformities inherent in the institutions making up the American way of life. From this disillusionment, alienation, violence, civil disobedience, and rejection of traditional sex mores resulted. Women became better educated and more assertive, and struggled for real as well as legal equality. Reacting to the impersonal nature of a scientific society, fundamental religions, astrology and cults (sometimes stimulated by exotic drugs) met the need of many to deal with unexplainable forces. "Doing your own thing" became a way of life as well as a catch phrase.

Narcissism and rejection of authority was not confined to the very young nor to an intellectual minority. Since World War II, American adults have become less integrated into the social structure. Meaning has been found through individual development and satisfaction, rather than through social status and traditional roles. The optimistic American dream of abundance and never ending material progress is being replaced today by what pollster Daniel Yankelovich calls an "historic shift" to pessimism.

The trend from community to increased pluralism was certainly not all negative. Challenges to traditional authorities resulted in policy changes, often through court decisions, giving more respect to the rights of Blacks, the

handicapped and those accused of crimes. In Maine, the Indian Lands Claims Settlement represented the national conscience; some groups had not received equal treatment throughout American history.

Literature, theatre, television and movies reflected a new freedom of language and movement. Leisure time was increased by shorter working hours, increased wealth, and early retirement made possible by private and public pension rights. This leisure encouraged an ostentatious recreation industry characterized by a search for pleasure through dining, skiing, sailing, gambling, camping and snowmobiling. Many of these activities assume cheap energy for their enjoyment or as a prerequisite to reaching the place where the activity occurs.

To some national and social critics, the American dream of progress became a nightmare in the 1970's. The sense of community declined. Unintentionally, some urban renewal "improvements" created their own blight as traditional neighborhoods were destroyed in the process of developing improved city designs and economic revitalization. Central cities were abandoned by the middle class for suburbs with safe streets and conventional family life. Later, many abandoned the suburbs for a nostalgic return to rural America. The State of Maine was one destination for that migration.

As Chapter Three makes a more detailed examination of social trends in Maine during the last forty years, only five social trends are highlighted in this introduction.

1. Public investment in welfare, health and education increased dramatically but still left Maine below average in per capita dollar expenditures for these social programs. Federal programs dramatically increased access to medical and social services; at the same time, the cost of providing those services mushroomed.
2. Maine's population has increased quite substantially since 1940—particularly during the 1970's when a 13.2 per cent increase was experienced with 57 per cent of this increase consisting of urban and well-educated migrants. Many more women joined the labor force. The increased number of households reflect choices made by single men and women and childless couples. The population has also aged.
3. Maine has moved to cultural diversity. Attitudes supporting differing and often alternative lifestyles represent a more pluralistic society than previously existed in the state. Women, the aged, the handicapped, Indians, institutionalized persons and other minorities separately sought and received improved legal and social status.
4. Most Maine people are educated in public schools and modern university classrooms that have been built since World War II. Hospitals and extended care facilities for the elderly or sick are also new.
5. Housing needs have been difficult to meet. Although the amenities of plumbing, electricity, insulation and central heat have greatly improved

the living quality of housing since 1940, the costs of purchase, interest and operation have led many young and aged residents to turn to industrial houses or apartment-sized condominiums. By 1980, the problem of adequate housing had become a key issue of public policy for Maine State Government.

Government and Politics

In politics, the centralizing tendencies of the New Deal and World War II encouraged expectations that government would provide social welfare and equal economic opportunity. Liberals stood in the eyes of their opponents for social permissiveness and unwarranted entitlements, whereas the values held by conservative spokesmen suggested to their opponents a return to the heartless economic permissiveness of the free market. Although the political pendulum swung from left to right—from Truman, Kennedy and Johnson and Carter to Eisenhower, Nixon, Ford and Reagan—it seemed clear by 1980 that the mass of Americans and Mainers would not fully trust either end of the political spectrum with their lives and economic well-being.

The federal G.I. Bill for Veterans encouraged increased emphasis on education as the avenue to economic mobility and family security. This period marked a great increase in research and an increase of scientific and technical knowledge. Consistent with national trends, Maine upgraded its colleges and University and created a regional system of vocational schools.

As previously stated, the role of federal and state governments has expanded enormously since 1940. During World War II, production, wages and consumption were tightly controlled. Rationing of food and gasoline was established. Social Security, public and private pension systems, income maintenance, and health programs removed much of the insecurity of being unemployed or older in America. Civil rights were guaranteed by Congress and the courts, and the nation moved to a more integrated education system and job market. However, starting in 1968, a conservative majority prevailed in American politics. Some conservatives felt that the demands on government had become too great, others felt that the programs of the Great Society were ineffective. Alienation against government also resulted from disillusionment with the Vietnam War, Watergate and other political scandals and the blurring of meaningful party distinctions.

Several major governmental trends are pointed out in the analysis of Maine politics found in Chapter Four.

1. After 1954, Maine government went through a transition from a one-party Republican state to competitive Democratic and Republican State parties. Later, the office-style ballot and direct primary nominating system contributed to a decline in party discipline, to the diminishing of issue differences, and to the increase of nonenrolled voters that led to election of an independent State Governor in 1974. Public initiatives on such issues as in-

come tax repeal, the "bottle" bill, preservation of Bigelow Mountain, and the shutdown of the Maine Yankee nuclear power plant are examples of the increase of nonparty issue-oriented politics.

2. Regardless of political affiliation, many observers consider that the primary political struggle has been between those who favor Maine as a rural and clean, though economically poor State, and those who see Maine's future in large scale industries and job opportunities comparable to more prosperous States.
3. As did the nation as a whole, Maine government assumed many new functions and modernized the three branches of State government. Professional management skills increased at the state level, as well as at the local level.
4. Many new policy areas developed within the public sector agenda including collective bargaining, affirmative action, energy utilization, consumer rights, and business and environmental regulations. To pay for these, and traditional programs, the State enacted a general sales tax in the late 1940's and an income tax in the 1960's. State revenues were dramatically increased. The increase in public revenues intensified the debate about the proper proportions of revenue that should be paid by business activities and by individuals.

C. SUMMARY

Ultimately the future of Maine will be decided by the character and aspirations of Maine people. Since 1940, population characteristics have measurably changed. Many newcomers migrated into Maine, and many native Mainers came back to Maine after exposure to the outside world through years of military service, college education or employment in other states. Divorce rates increased and birth rates declined. The population aged, and more and more women worked outside the home. These population changes both reflected and caused changes in attitudes. People became more tolerant of those of differing social beliefs; they also became more self-centered and determined "to do their own thing". As traditional institutions lost their authority, the attitudes of Maine people seemed to become more pluralistic and variable. The issues and options identified by the Maine History Conference and the background papers found in Chapters II, III and IV will make up Maine's agenda for the remainder of the decade, as the search for agreement and policy consensus continues through the 1980's.

CHAPTER II
ECONOMIC DEVELOPMENT IN MAINE

Introduction
Major Industries
Factors Affecting Economic Growth
Issues Related to Economic Development
Endnotes

A. INTRODUCTION

Since 1940, Maine has changed from a largely rural state (60 per cent by the U.S. Census definition) to a partially urban one (48 per cent according to the 1980 Census). The most rapid development has occurred along the Route I-95 corridor from Kittery to Bangor, and in a number of urban pockets along the coastline. During that forty-year period, the state's economy has altered from primary reliance on natural resources and assembly-type industries dependent on cheap labor (excepting a brief interlude devoted to wartime activities), to a more diversified base including metals and machinery, defense industries, and varied services.

Real income and living standards have expanded tremendously in Maine. The transportation of goods and people has shifted greatly from rail and water to highway and air. Shopping centers and medical care facilities also have proliferated; however, small businesses are still the norm (firms hiring less than 20 employees formed 89 per cent of the total in 1980). Energy use has shifted from primary dependence on coal and wood to petroleum, hydro and nuclear power, but is now beginning to move back to wood and coal.

The question of how Maine's economy should be developed in the future is seldom discussed systematically. In practice, business and government leaders seemed to be satisfied with almost any new or expanding industry, except for those which might bring considerable air and water pollution (such as an oil refinery). Optimal economic development has been defined as the

addition of new or expanding industries increasing real income and steady employment. In fact, tradeoffs are usually necessary between economic development and some environmental degradation or unwanted change in the social structure.

Four of the most significant indicators of Maine's economy are its measures of gross product, labor and proprietors' income, employment, and unemployment. Trends in each of these measures since 1940, where available, are described in the remainder of the Introduction to this Chapter.

Gross Product

Maine's real gross product, the most complete measure of our economy, almost doubled (up 79 per cent in constant dollars) from 1958 to 1980, when it reached an estimated $9.1 billion.[1] The fastest growing industries were services (up 188 per cent), finance (+101 per cent), construction (+104 per cent), trade (+84 per cent), and government (+81 per cent). Manufacturing and transportation and utilities rose at slower rates (64 per cent and 60 per cent, respectively), while farming declined 59 per cent. Forestry and fisheries now account for 1.2 per cent of the state's gross product. (No comparable data for 1958 are available. See Table 1 below.)

Table 1
Gross Product of Maine by Industry Group[1]

	(Millions of 1980 Dollars)		
Industry Group	1958	1970	1980
Total	**5091**	**7837**	**9127**
Manufacturing	1604	2283	2627
Trade	854	1349	1570
Service	438	830	1261
Government	658	1065	1192
Finance*	491	892	985
Transportation & Utilities	462	639	737
Construction	239	452	488
Farming	336	261	139
Forestry & Fisheries	NA	55	115
Mining	8	11	13

*Including imputed rentals of owner-occupied housing. NA–Not Available.

Real Labor and Proprietors' Income

Real labor and proprietors' income (wages and salaries, other labor income, and proprietors' income) in Maine more than tripled (up 218 per cent

in constant dollars) between 1940 and 1980.[2] By far, the fastest growing industry groups were construction (up 865 per cent) and services (+634 per cent), which were followed by finance, government, trade, manufacturing, and transportation and utilities. Farming was the only sector which declined (by 3 per cent). Projections for 1990 by the U.S. Department of Commerce indicate an overall rise of 70 per cent in ten years, which seems excessive in comparison with previous decennial rates of increase (21 per cent between 1970 and 1980, 30 per cent between 1960 and 1970, 36 per cent between 1950 and 1960, and 49 per cent between 1940 and 1950). Part of the reason for the too-rapid climb predicted for 1980 and 1990 is due to the fact that 1978 was used as the base year, when the dollar total was 6 per cent higher than the subsequent figure for 1980. (See Figure 1 and Table 2 below.)

Table 2
Labor and Proprietors' Income in Maine by Industry Group[2]

	(Millions of 1980 Dollars)(Projected)					
Industry Group	1940	1950	1960	1970	1980	1990
Total	**1987**	**2960**	**4039**	**5239**	**6313**	**10,718**
Manufacturing	593	993	1224	1620	1817	2781
Services	146	173	422	706	1070	2170
Government	258	294	678	926	1190	1800
Trade	270	404	725	859	1001	1768
Transportation & Utilities	140	191	278	317	384	700
Construction	39	89	264	363	380	654
Finance, Insurance, Real Estate	51	65	138	213	260	514
Farming, Forestry, Fisheries	203	309	296	221	197	327
Mining	0	6	4	4	4	4
Other labor income and non-farm proprietors	288	428	NA	NA	NA	NA

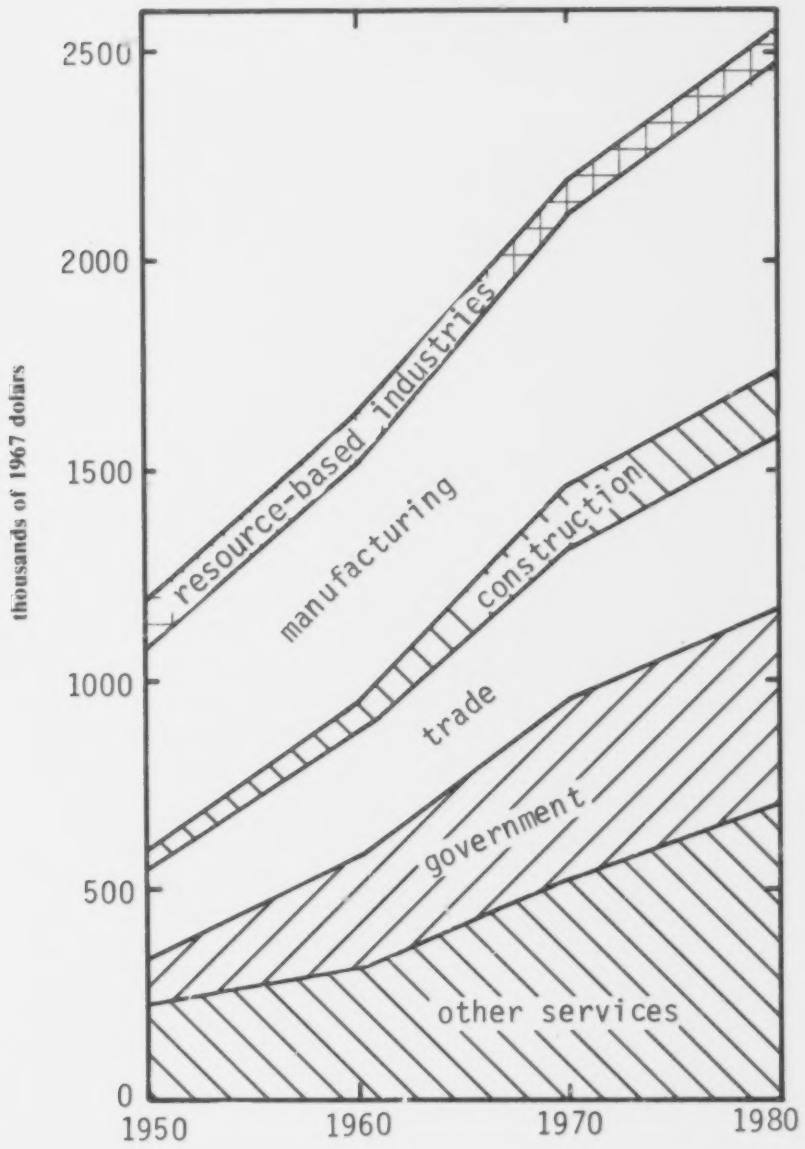
NA-Not Available.

Resource-based industries (as defined later in this report) now account for about 19 per cent of Maine's labor and proprietors' income, with forestry forming by far the largest component and followed in importance by agriculture, tourism, fishing, and mining. Within the last decade, these industries collectively rose 11 per cent, while the most rapid gains were recorded by fisheries and tourism, and agriculture suffered a substantial decline.

The other "export" industries (depending largely on out-of-state markets) together provide approximately 18 per cent of the state's labor and proprietors' income. The largest sectors are defense industries, the manufacturing of nondurable goods, metals and machinery manufacturing, and insurance

Figure 1

Labor and Proprietors' Real Income in Maine



Source: U.S. Department of Commerce

carriers. Since 1970, metals and machinery increased the fastest, followed by defense and insurance, while nondurables declined.

Maine's service industries (which depend primarily on state residents for customers) now constitute about 63 per cent of the state's total labor and proprietors' income. The biggest components are civilian government, various services, trade, transportation and utilities, construction, and finance, and real estate. During the last decade, the most rapid increases were experienced by services and finance.

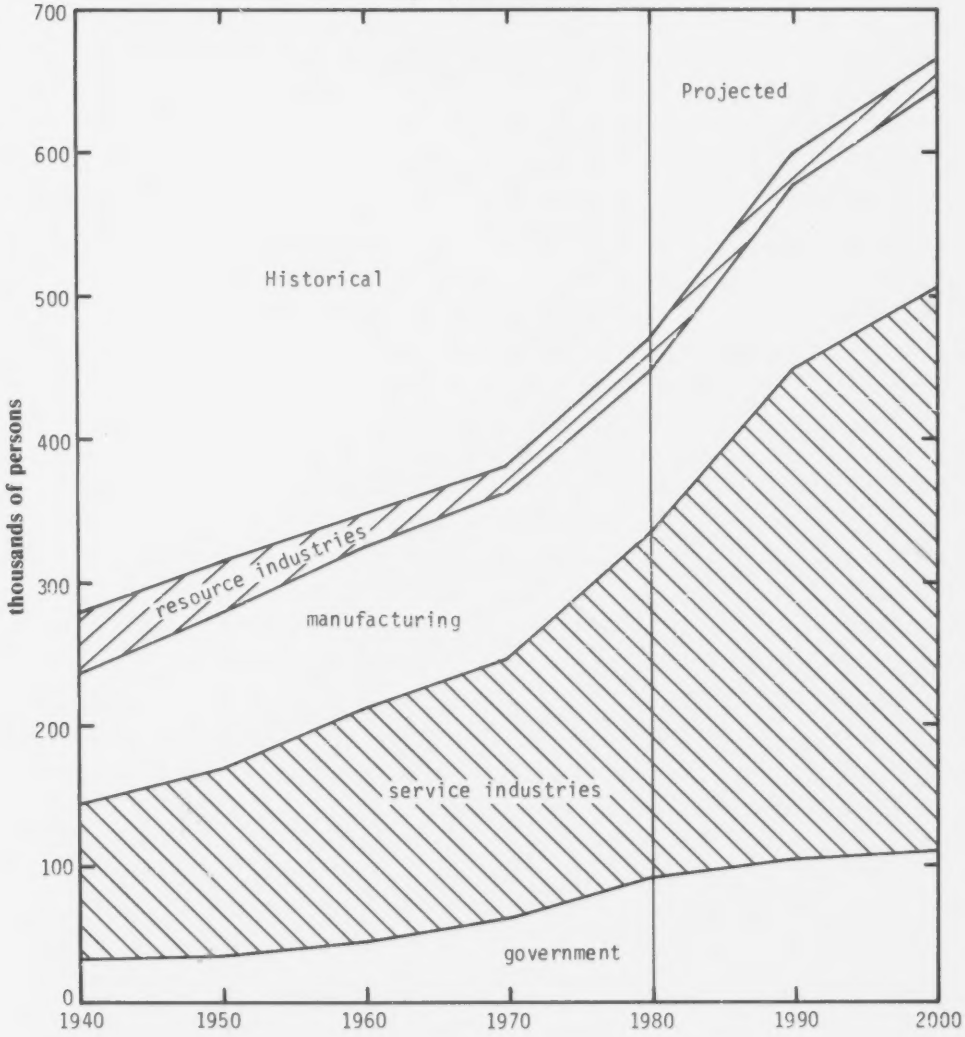
Employment

Employment in Maine jumped 76 per cent between 1940 and 1978.[2] The most rapidly expanding industry groups are finance, insurance, and real estate (up 240 per cent), government (+200 per cent), and trade (+128 per cent). They are followed by construction, services, manufacturing, and transportation and utilities. Farming, forestry, and fisheries as a group registered a decline of 46 per cent during the same period. Projections by the U.S. Department of Commerce indicate a rise of 22 per cent in the state's total employment between 1978 and 1990, to 601,000 persons. Like this same agency's projections of labor and proprietors' income which were described previously, these projections may also be exaggerated. (They indicate a decennial rise much greater than the previous one of 17 per cent, and much higher than the increases of prior decades.) They anticipate most rapid rises in employment related to finance, insurance and real estate (+47 per cent), services (+41 per cent), and trade (+29 per cent). Employment in construction will increase 19 per cent; utilities, 16 percent; manufacturing, 13 per cent; government, 9 per cent; and farming, forestry, and fisheries, collectively will have no growth, according to their projections. (See Figure 2 and Table 3 below.)

Table 3
Employment in Maine by Industry Group[2]

	(Thousands of Persons)					
Industry Group	1940	1950	1960	1969	1978	1990
Total	**279**	**315**	**348**	**419**	**491**	**601**
Services	55	55	68	68	99	140
Manufacturing	93	108	113	117	113	128
Trade	43	54	61	73	98	126
Government	32	37	48	85	96	105
Construction	12	17	20	21	27	32
Finance, Insurance, Real Estate	5	7	10	14	17	25
Farming, Forestry, Fisheries	41	36	21	23	22	22
Transportation and Utilities	17	23	21	18	19	22
Mining	1	1	0	0	0	0

Figure 2
Employment in Maine



Source: U.S. Department of Commerce

Another recent long-range projection of employment in Maine was published by the National Planning Association in December, 1979. It anticipates a rise of about 23 per cent in employment between 1979 and 1990, when the total is expected to reach 598,000 persons. Earlier employment projections for 1990 by the U.S. Department of Commerce ranged from only 425,000 to 515,000 persons; the National Planning Association expected 463,000; the Public Affairs Research Center of Bowdoin College 447,000, the Maine Department of Labor, 525,000; the University of Maryland, 511,000 persons;[4] and the Maine Economic Policy Analysis Model, a range from 570,000 to

600,000. Although the latter total is almost identical to that of the U.S. Commerce Department, the industry figures differ markedly. MEPAM has higher projections for trade and services (including proprietors); manufacturing; and farming, forestry and fisheries. Their projections for government, construction, finance, and transportation are lower.

Resource-based industries now constitute about 18 per cent of Maine's total employment. The largest sectors are forestry, agriculture, and tourism, while fisheries and mining are of smaller magnitude. These industries as a whole grew 13 per cent between 1970 and 1980. Tourism increased the most rapidly (82 per cent), followed by fisheries (23 per cent), mining (2 per cent), and forestry (1 per cent), while agriculture fell 8 per cent.

The other "export" industries provide approximately 17 per cent of the state's total employment. The leading components are nondurables manufacturing, metals and machinery manufacturing, and defense industires, followed by insurance carriers. The greatest increase during the decade was recorded by metals and machinery (up 66 per cent), while insurance carriers rose 20 per cent, defense industries rose 4 per cent, and nondurables manufacturing dropped 13 per cent. Employment in these industries together increased only 4 per cent.

Service industries now account for 65 per cent of the state's employment. The biggest sectors are government, trade, services, and self-employed individuals. Construction, transportation and utilities, finance and real estate, and printing and publishing are of less numerical importance. Employment in the service industries as a whole rose 29 per cent during the decade. The fastest growing components were services (up 73 per cent), finance and real estate (+45 per cent), trade (+25 per cent), printing and publishing (+28 percent), and civilian government (+25 per cent). Construction, transportation and utilities rose more slowly, while the self-employed fell in number.

Unemployment

Unemployment in Maine has ranged from highs of 10.3 per cent of the state's labor force in 1940 and 1975 to a wartime low of only 0.6 per cent in 1944.[5] Postwar recessions have raised unemployment rates to 8.7 per cent in 1949, 5.7 per cent in 1954, 8.5 per cent in 1959, 8.4 per cent in 1961, and 10.3 per cent in 1975. There have, of course, been troughs in intervening years. Since 1946, Maine's annual unemployment rates have been higher than comparable national averages in almost every year. (See Figure 3.)

B. MAJOR INDUSTRIES

In this section, all industries are grouped into three major sectors: resource-based industries, other "export" industries (most of whose customers live out of state), and service industries (broadly construed to include all in-

dustries whose primary markets are within Maine). The numerous detailed industries are compared with respect to labor and proprietors' income and employment for the years 1970 and 1980. Data for prior decades are not available. (See Table 4 below.)

Figure 3
Unemployment Rates in Maine and the United States

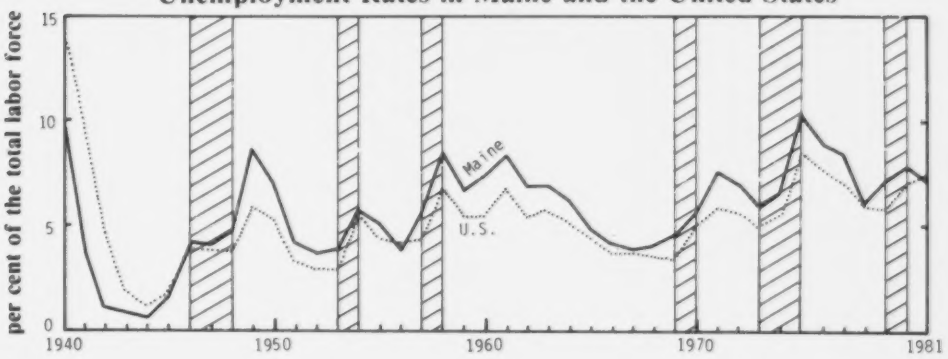


Table 4
Labor and Proprietors' Income and Employment by Major Sector in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**5420**	**6315**	**+17**
Resource-based industries	1063	1184	+11
Other export industries	1054	1165	+11
Service industries	3310	3963	+20
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**396.8**	**472.7**	**+19**
Resource-based industries	76.3	86.0	+13
Other export industries	76.8	80.0	+ 4
Service industries	237.3	306.7	+29

As can be seen above, the service industries depending largely on in-state customers, are by far the largest and fastest-growing sector. The resource-based and other export industries, which are the prime movers of economic change, (up or down), have grown much less rapidly during the last decade.

Resource-based Industries

Resource-based industries now account for about 19 per cent of Maine's labor and proprietors' income and 18 per cent of the state's employment, as

was discussed previously. Each one of the five major components will be discussed below, in order of its importance: forestry, agriculture, tourism, fisheries, and mining. (See Figure 4 and Table 5 below.)

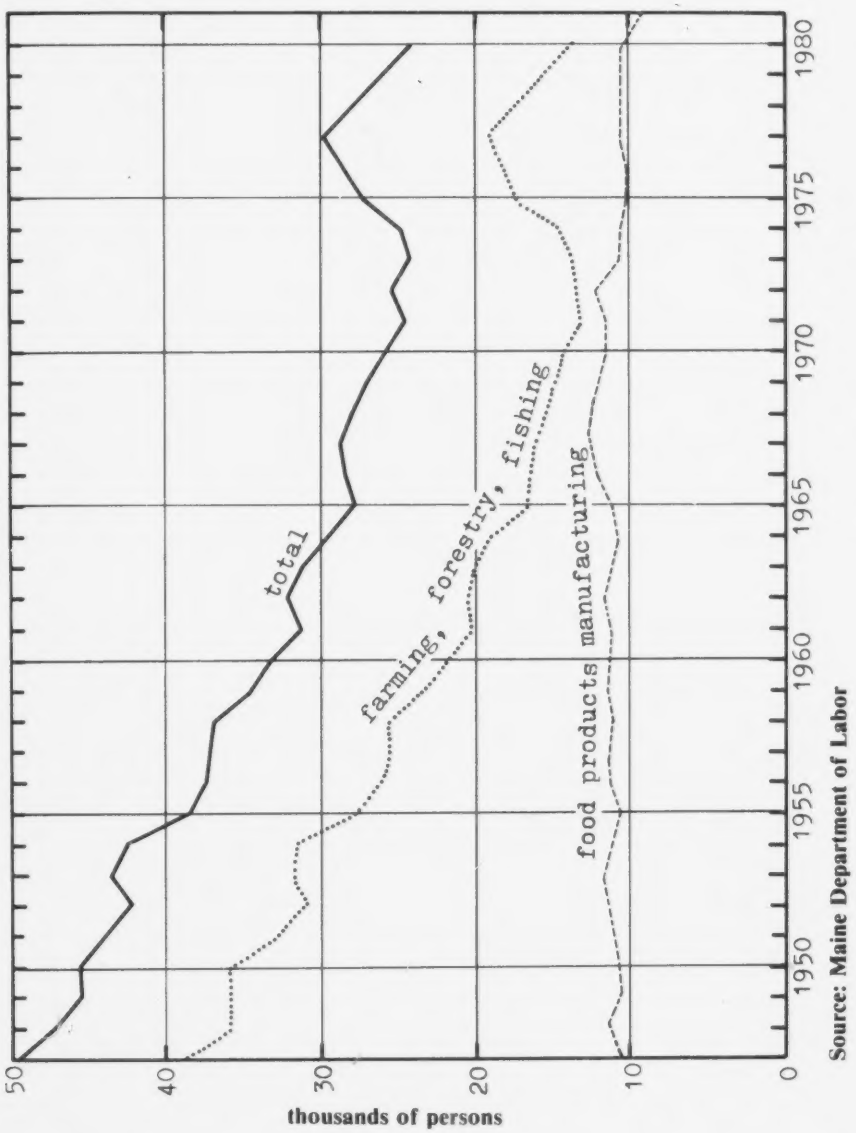


Figure 4
Employment in Maine Resource-Based Industries 1947–1981

Source: Maine Department of Labor

Forestry

Forestry is by far the largest of Maine's "export" industries, which are the prime movers of economic change in the state. Forestry, as broadly defined here, includes paper manufacturing, lumber and wood products manufacturing (including logging), furniture manufacturing, and forestry services. Within the last decade, the most rapid increase in income took place in forestry services, followed by the manufacture of furniture, paper, and lumber and

Table 5
All Resource-based Industries in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**1063**	**1184**	**+11**
Forestry	567	674	+19
Agriculture	312	239	−23
Tourism	109	158	+46
Fisheries	50	87	+74
Minerals	25	26	+ 4

Employment[6]	(Thousands of Persons) 1970	1980	(% Change) 1970–80
Total	**76.3**	**86.0**	**+13**
Forestry	32.1	32.5	+ 1
Agriculture	24.8	22.7	− 8
Tourism	11.4	21.3	+87
Fisheries	6.7	8.3	+23
Minerals	1.2	1.2	+ 2

wood products. The changes in relative employment were somewhat similar, except that neither paper nor lumber manufacturing increased employment because of their capital-intensive nature. (See Table 6 below.)

Commercial forests now cover 90 per cent of Maine's total area.[7] The timber cut has increased from 1.2 billion board feet in 1949 to almost 2.7 billion thirty years later. Two-thirds of the timber cut in 1980 was utilized for pulpwood, while 30 per cent was used for softwood saw-timber and 5 per cent for hardwood saw-timber. (See Figure 5.) Production of forest products was valued at almost $3.1 billion in 1980—an increase of 237 per cent in constant dollars since 1949. During that thirty-year period, forest products rose from 32 per cent to 43 per cent of the state's total manufacturers. (See Figure 6.) Seventy-nine per cent of these products now consist of paper, 20 per cent of lumber and wood, and only 1 per cent of furniture. Another measure of forestry is its value added by manufacture, which totalled $2.1 billion in 1978, or 47 per cent of the state's total for all manufactures. Out of the $4.9 billion which all of Maine's manufacturing firms spent on plant modernization and equipment between 1945 and 1980, the paper industry alone spent $3.0 billion, lumber and wood products $411 million, and furniture only $17 million.

What, then, is the "problem" facing Maine's forest industry? According to several speakers at the Blaine House Conference on Forestry in January

Table 6
Forestry in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**567**	**674**	**+ 19**
Paper Manufacturing	361	439	+ 22
Lumber and Wood Products Manufacturing	193	214	+ 11
Furniture Manufacturing	11	14	+ 27
Forestry Services	2e*	7e	+250e

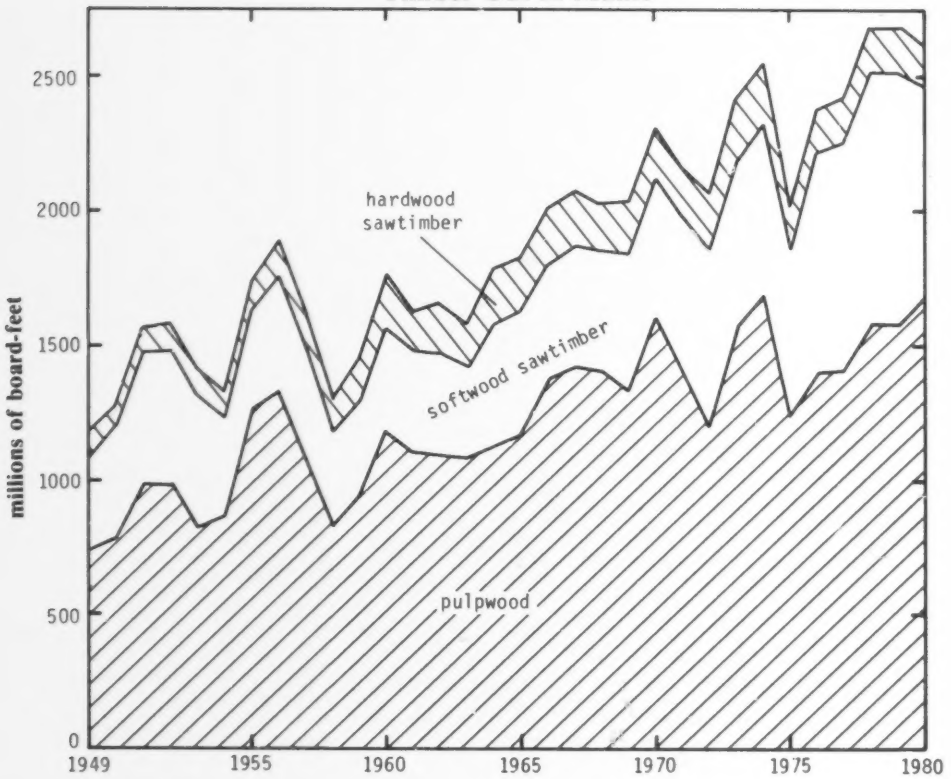
Employment[6]	(Thousands of Persons) 1970	1980	(% Change) 1970–80
Total	**32.1**	**32.5**	**+ 1**
Paper Manufacturing	18.0	17.8	− 1
Lumber and Wood Products Manufacturing	13.2	13.3	+ 1
Furniture Manufacturing	0.8	1.2	+50
Forestry Services	0.1	0.2	+92

*e–estimated by the University of Southern Maine's Center for Research and Advanced Study (CRAS).

1981, the primary need is to satisfy the increasing demand for wood products with a forest resource which is deteriorating in quality, and, in some cases, quantity.[7] While future demand for paper products will be relatively steady (though dependent on the ups and downs of the business cycle), the need for new wood products such as chips for waferboard and pulp, and bark and waste wood for boiler fuel and chemicals appears to be accelerating rapidly. The demand for lumber is likely to decrease because of reduced construction of single-family homes. At the same time, poor forest management practices and the inroads of the spruce bud-worm have reduced supplies of timber. Thinning and culling of low-grade or dead wood not only provide an augmented source of wood for fuel or chemical production, but also improve the quality of remaining timber for subsequent harvesting for lumber or pulp.

In 1983, the U.S. Forest Service will complete a new inventory of the state's woodlands. Their report will provide a comparison with the results of their previous survey in 1972. It is hoped that this information will act as a spur to greater efforts to improve the productivity of our woodlands.

Figure 5
Timber Cut in Maine



Source: Maine Bureau of Forestry

Agriculture

Agriculture is a troubled industry in Maine. Although the industry group provided $239 million in labor and proprietors' income in 1980 (derived mostly from farming and food manufacturing), that represented a real decline of 23 per cent since 1970. Farming rose 44 per cent to a peak in 1974 and then fell 46 per cent by 1980, while foods manufacturing dropped 13 per cent and agricultural services rose 20 per cent. Employment in agriculture as a whole increased 15 per cent from 1970 to 1977, and then dropped 19 per cent to 1980. (See Figure 7 and Table 7.)

Between 1939 and 1949, both harvested cropland and pasture land rose 23 per cent in acreage, then fell 67 per cent by 1978. (See Figure 8.) At the same time, the total value of agricultural products sold rose 55 per cent in constant dollars because of rising productivity. During that period, the value of crops fell 20 per cent, while livestock products increased 186 per cent in real value. In 1980, cash receipts of Maine farms totalled $425 million, of which $300 million consisted of livestock products (primarily eggs, poultry, and dairy products) and $125 million, of crops (two-thirds of which was po-

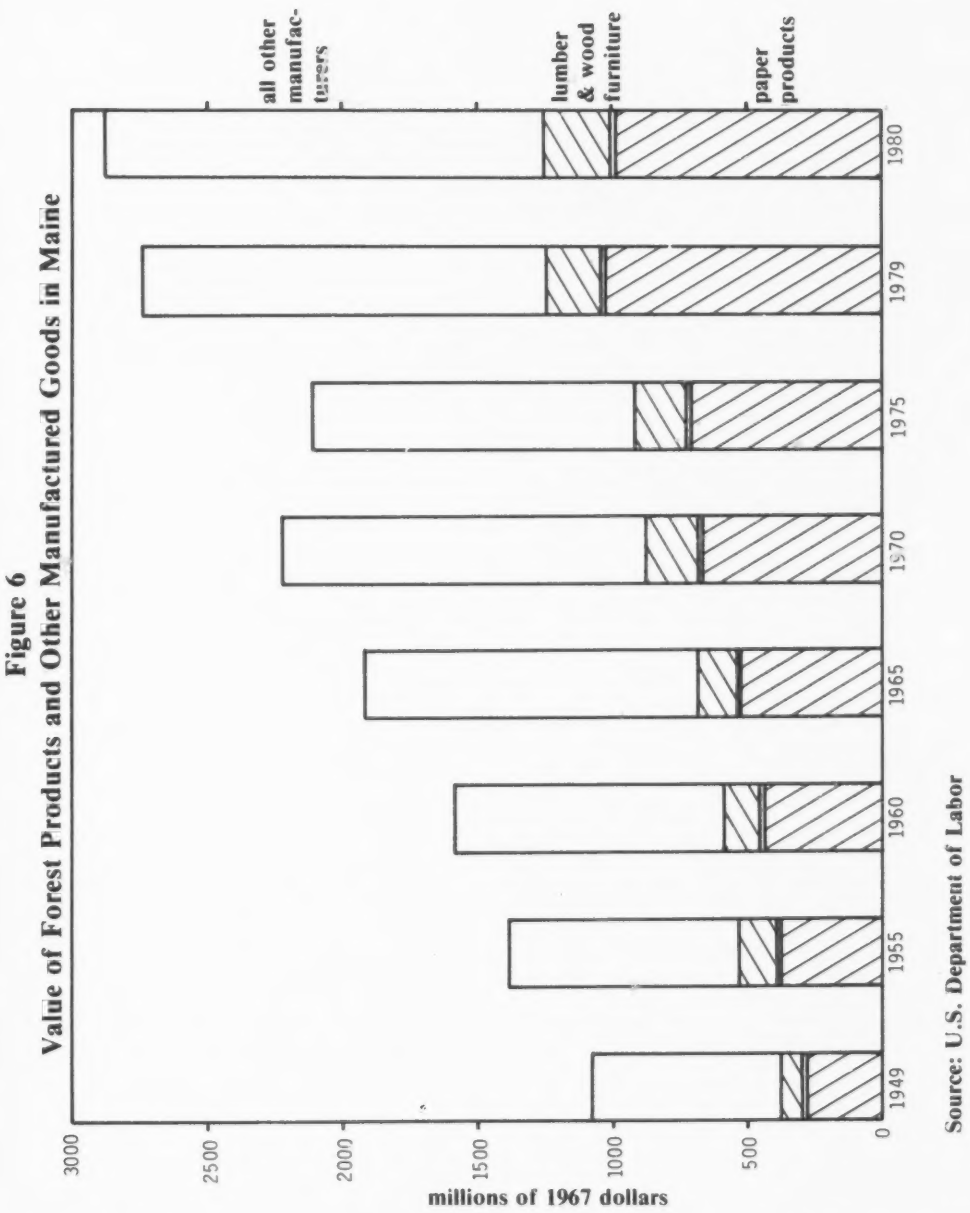


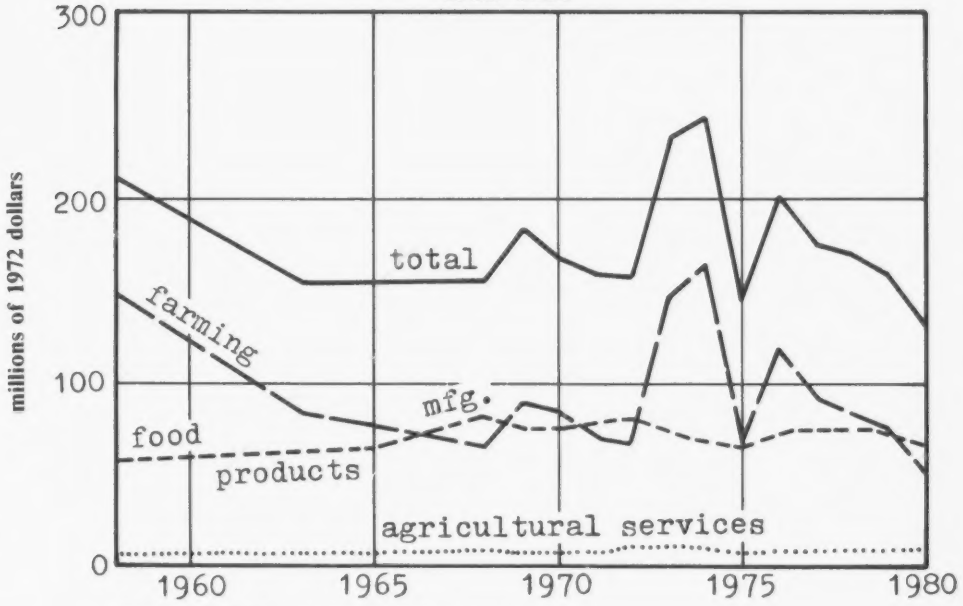
Figure 6
Value of Forest Products and Other Manufactured Goods in Maine

tatoes, plus fruits, nursery products, and grain). (See Figure 9.) Realized income per farm in Maine rose from only $1,995 in 1949 to a peak of $23,468 in 1974, and then fell to $2,001 in 1980 (in current dollars), due partly to wildly fluctuating prices for potatoes. (See Figure 10.)

Although the U.S. Soil Conservation Service has estimated that there are about one million acres of prime soil in the state, much of this land (particularly in Aroostook County) has become seriously eroded due to poor farming practices.[8] Erosion has resulted in declining yields of potatoes, which are also

Figure 7

Personal Income from Agriculture in Maine
1958–1980



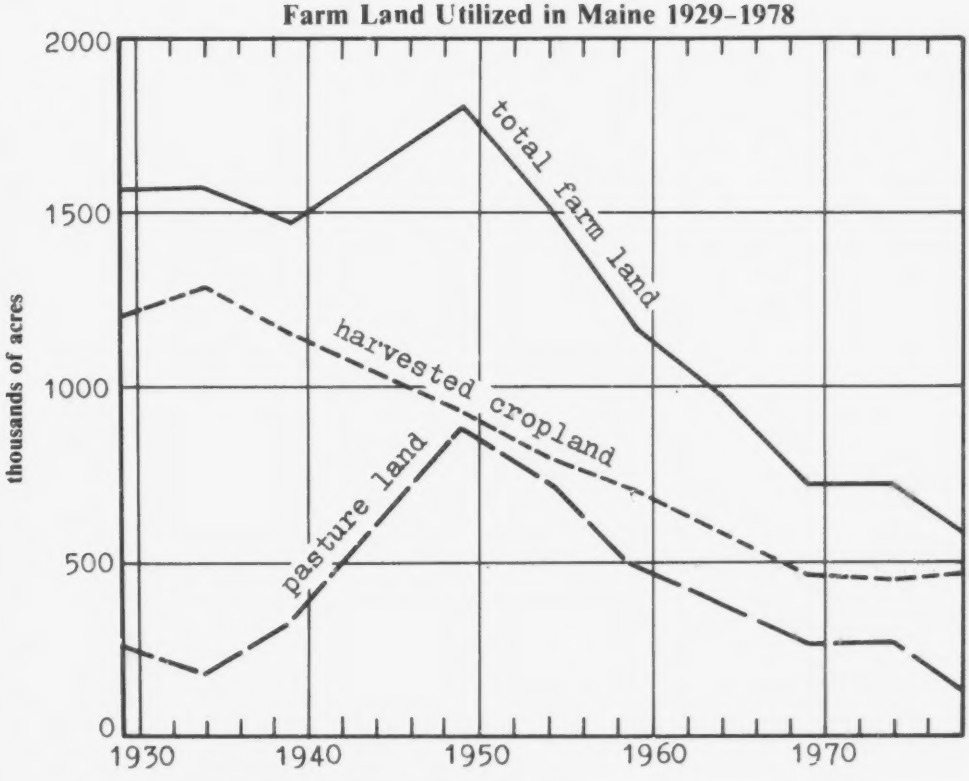
Source: U.S. Department of Commerce

Table 7
Agriculture in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**312**	**239**	**–23**
Farming	168	109	–35
Foods Manufacturing	129	112	–13
Agricultural Services	15	18	+20
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**24.8**	**22.7**	**– 8**
Farming	14.4	13.8	– 4
Foods Manufacturing	9.6	8.2	– 4
Agricultural Services	0.8	0.7	–13

Figure 8

Farm Land Utilized in Maine 1929–1978



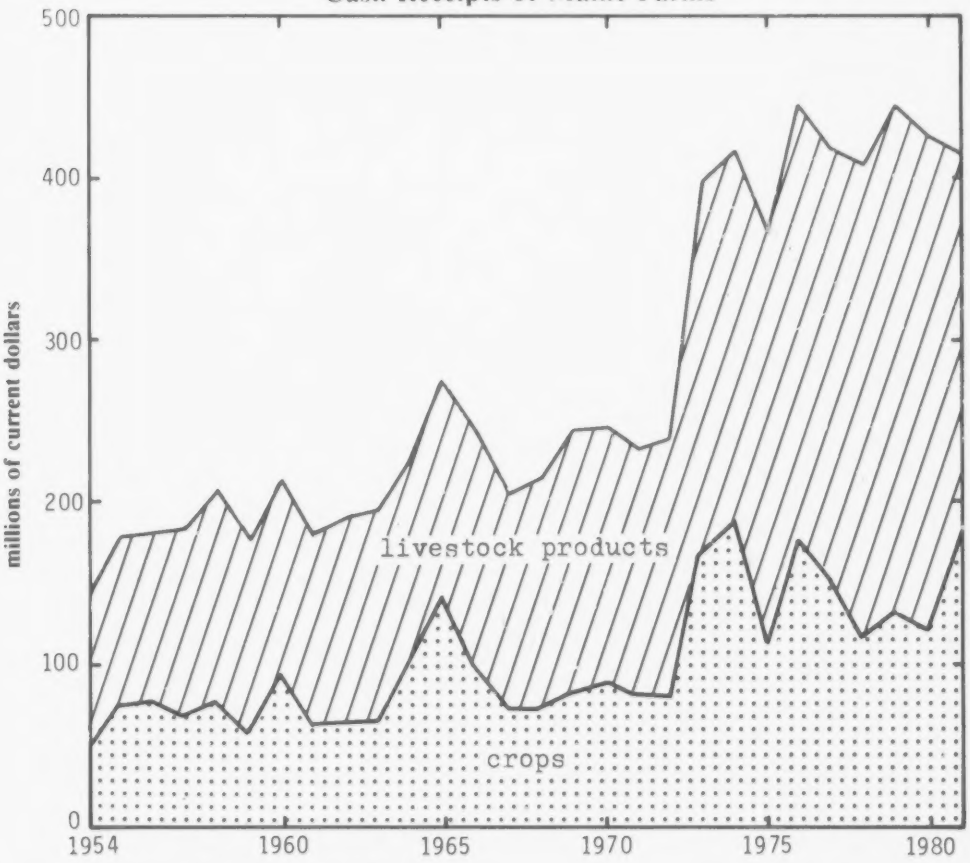
Source: U.S. Census of Agriculture

in trouble because of competition with Canadian and other U.S. potatoes, resulting in part from inadequate grading practices and erratic prices. Although the egg industry appears to be stable, three-fourths of the State's broiler production has disappeared within the last year. The milk industry has recently been reorganized extensively into a dairy cooperative.

Although many small farms have been started to serve the rising demand for quality fruits, vegetables, and meats in Maine, that segment of the industry is still small. Although the growing of fruits and vegetables in greenhouses so far is insignificant in Maine, the sale of nursery products, apples, and berries is expanding. The Maine Food and Farmland Study Commission made extensive recommendations for improvements in the state's agricultural practices, two-thirds of which have been adopted. Included are acts related to potato packing and marketing, construction of a grain terminal, and a study of erosion. Although nothing can be done about the short growing season and stony soil of Maine, better soil management and marketing practices can improve agricultural productivity significantly.

Figure 9

Cash Receipts of Maine Farms

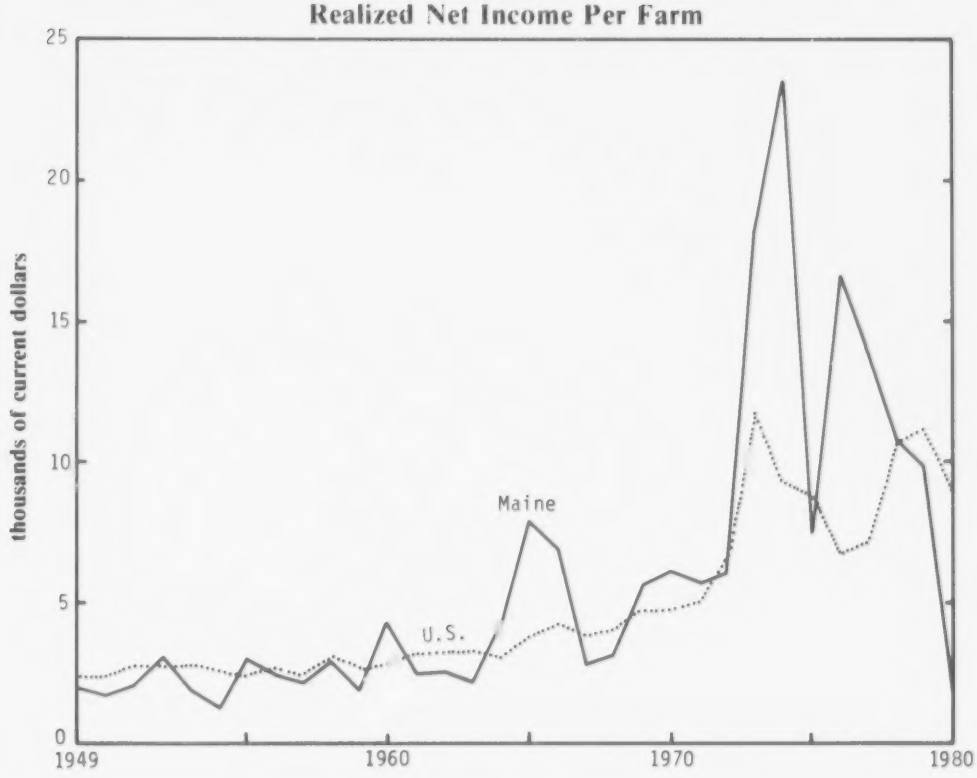


Source: U.S. Department of Agriculture

Tourism

Tourism in this chapter has been included within resource-based industries because the state's mountains, seacoast, lakes, and forests are the primary drawing card for out-of-state travelers. Tourism is difficult to measure, partly because it is not a recognized industry within the Standard Industrial Classification of the U.S. government. For our purposes, we have listed two major components as measures of tourism: (1) eating and drinking places, and (2) hotels and other lodging places. State residents also purchase a significant share of restaurant meals and lodgings; on the other hand, out-of-state tourists also buy great quantities of gasoline, groceries, antiques, and gifts. The well-publicized myth that tourism is the state's second largest industry is far from the truth: it ranks 12th in regard to labor and proprietors' income, and seventh in employment, according to the measurement shown throughout this report.

Figure 10
Realized Net Income Per Farm



Source: U.S. Department of Agriculture

Labor and proprietors' income derived from tourism, as defined above, totalled $158 million 1980—a real rise of 46 per cent since 1970. Eating and drinking places increased 71 per cent in this respect, while hotels and motels rose 9 per cent. Employment in tourism aggregated almost 21,300 in 1980—an increase of 87 per cent since 1970. At the same time, employment in eating and drinking places jumped 105 per cent and hotels and other lodgings 42 per cent. (See Table 8.)

Another component of tourism is the use of seasonal homes, many of which are occupied by residents of other states. The total number of seasonal homes in Maine rose from 60,162 in 1970 to 71,752 in 1980—an increase of 19.2 per cent.

Sales of Maine's eating and drinking places rose from $14 million in 1939 to $261 million in 1977—an increase of 1764 per cent in current dollars. During the same period, receipts of the state's hotels and other lodgings rose from $65 million to $114 million—an increase of 75 per cent. (It is impossible to estimate "real" or deflated increases, because Consumer Price Indexes for food and lodging away from home were not computed in 1939.) Day use of

Table 8
Tourism in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**109**	**158**	**+46**
Eating and Drinking Places	63e*	108e	+71e
Hotels and Other Lodgings	46	50	+ 9
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**11.4**	**21.3**	**+ 87**
Eating and Drinking Places	8.2	16.7	+105
Hotels and Other Lodgings	3.3	4.6	+ 42

*e-estimated by CRAS

Maine's state and national parks rose 851 per cent from 1947 to 1980, when it reached 5.4 million visitor days. Camper use of these parks increased 1760 per cent, rising to 558,000 visitor days.

Tourism has been studied by the State Planning Office, the State Development Office, the Governor's Committee on Coastal Development and Conservation, and the Department of Economic Development.[9] Current thrusts include the development of theme parks, inland tourist destinations, and spring and fall activities. The Department of Conservation is also updating its Statewide Comprehensive Outdoor Recreation Plan. The Governor's Advisory Committee on Tourism is now studying a proposal to measure the current economic impact of the industry. It is important that scenic areas throughout the State be preserved from the type of development which may destroy the beauty which tourists come to enjoy.

Fisheries

Fisheries is another industry traditional to Maine. Labor and proprietors' income from fisheries totalled $87 million in 1980—a "real" increase of 74 per cent since 1970. The two components of the industry which are considered here are fishing, whose income rose 132 per cent, and seafood manufacturing, which remained static. Estimated employment in Maine's fisheries was 8,300 in 1980—a rise of 23 per cent since 1970. During this period, employment due to fishing increased 24 per cent and seafoods processing, 23 per cent. (See Table 9 below.)

Table 9
Fisheries in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**50**	**87**	**+ 74**
Fishing	28e	65e	+132e
Seafoods Manufacturing	22	22	0
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**6.7**	**8.3**	**+23**
Fishing	5.1	6.3	+24
Seafoods Manufacturing	1.6	2.0	+23

e–estimated by CRAS

The volume of fish and shellfish landings at Maine ports rose from 242 million pounds in 1953 to a peak of 317 million in 1958, then dropped to a low of 138 million in 1975 and rebounded to 244 million pounds in 1980. The drop from 1963 to 1975 was caused primarily by the inroads of foreign fishermen in the Gulf of Maine. Passage of the 200-mile limit in 1976 has resulted in a doubling of finfish landings up to their present level of about 200 million pounds. (See Figure 11.)

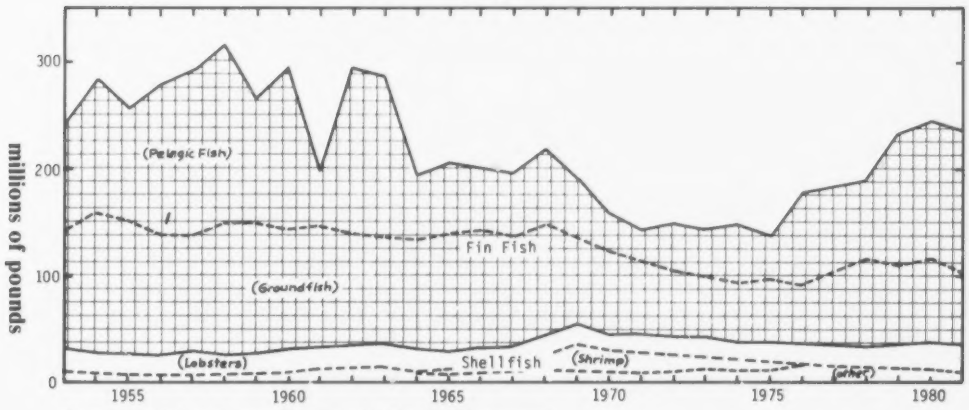
Landings of groundfish (mainly redfish and whiting) remained steady at about 100 million pounds from 1953 to 1968, fell to a low of 48 million in 1975, then rebounded moderately. During the same period, landings of pelagic fish (principally herring, mackerel, and menhaden) fluctuated tremendously from a peak of 171 million pounds in 1958 to a low of 29 million in 1971, and then to a new high of 129 million in 1981.

Landings of shellfish rose gradually from 31 million pounds in 1953 to a peak of 55 million in 1979, then slid significantly to the recent low of 33 million pounds in 1978, after which they increased slightly. Lobster landings remained close to 20 million pounds from 1953 to 1968, slid to 16 million in 1972 and 1974, then rose to the current level of 23 million pounds. Shrimp rose to a peak of 25 million pounds in 1969, then almost disappeared by 1977.

Although catches of finfish generally appear to be approximating a sustainable yield basis, lobsters and scallops continue to be overfished.

The Maine Department of Marine Resources and the Department of Transportation have been aiding the construction of fish piers and related processing facilities at several Maine ports, in order to enhance the value added

Figure 11
Fish Landings at Maine Ports



Source: Maine Department of Marine Resources

by the fisheries industry to the state's economy. The Department of Marine Resources and the Maine Development Foundation also are promoting the marketing of groundfish in midwestern states.

It is hoped that eventual adjudication of the U.S.-Canadian boundary dispute on Georges Bank and an accompanying fishery agreement will eliminate the serious depletion of scallops and bring better control to pelagic and groundfish catches.[10] The future of sardine canning in Maine is uncertain, and the potentials of aquaculture and underutilized species are both unrealized as yet.

Minerals

The minerals industry generated about $26 million in labor and proprietors' income in 1980—an increase of 4 per cent since 1970. Mining itself remained static at $4 million, while the manufacture of stone, clay, and glass products (mostly cement) rose 5 per cent to $22 million. Employment derived from minerals increased 2 per cent to 1,200 persons in 1979. Of these, over 100 were in mining and 1,100 in the production of stone, clay, and glass products. (See Table 10 below.)

The tonnage of minerals extracted in Maine rose from 7.4 million in 1952 to a high of 18.4 million in 1965, then dropped to 9.5 million in 1971, rose again, and fell to 8.3 million in 1981. Meanwhile, the value of minerals produced in the State jumped from $5.1 million in 1953 to $31.2 million in 1977, then slid to $21.0 million in 1980. About half of this total consists of sand and gravel for the state's construction industry, and most of the remainder is limestone for cement production. There also are smaller quantities of cut stone for buildings and curbings, gemstones, clay, and peat. Copper and zinc were formerly mined on Deer Isle. A proposed copper mine at Bald Mountain near Ashland in Aroostook County is estimated to contain 31 million tons of re-

Table 10
Minerals in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**25**	**26**	**+4**
Mining	4	4	0
Stone, Clay, and Glass Products Manufacturing	21	22	+5
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**1.2**	**1.2**	**+ 2**
Mining	0.3	0.1	−56
Stone, Clay, and Glass Products Manufacturing	1.0	1.1	+17

coverable ore, or about 500,000 tons of copper. Development of this mine is dependent on environmental approvals and the prospective demand for copper. (The market price is rather low at present). Operating personnel for the mine are estimated at 220.

Other Export Industries

Other export industries (depending largely on out-of-state markets) now amount to about 18 per cent of the state's total labor and proprietors' income and 17 per cent of total employment. During the last decade, labor and proprietors' income derived from these industries grew 11 per cent, while employment increased only 4 per cent. Within this grouping, nondurables manufacturing is the largest industry sector, but metals and machinery manufacturing is the fastest growing. Defense industries grew in income but not in employment, while insurance carriers increased moderately in both respects. (See Table 11 below.)

Nondurables Manufacturing

Nondurables manufacturing fell 11 per cent with respect to labor and proprietors' income, and 13 per cent with respect to employment within the last decade. This is because two of Maine's largest "traditional" industries—shoes and textiles—suffered substantial declines. At the same time, the smaller nondurables industries—rubber and plastics, apparel, chemicals and miscellaneous manufactures—all increased in regard to labor and proprietors' in-

Table 11
Other Export Industries in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**1054**	**1165**	**+11**
Nondurables Manufacturing	528	470	−11
Defense Industries	261	326	+25
Metals and Machinery Manufacturing	189	291	+54
Insurance Carriers	76e	78e	+ 3e
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**76.8**	**80.0**	**+ 4**
Nondurables Manufacturing	45.2	39.3	−13
Defense Industries	16.6	17.3	+ 4
Metals and Machinery Manufacturing	11.5	19.1	+66
Insurance Carriers	3.6	4.3	+20

e–estimated by CRAS

come, while employment in rubber and plastics and miscellaneous products also rose considerably. All of these industries rely primarily on the availability of low-cost labor, with which Maine is abundantly supplied. (See Table 12 below.)

The value added by manufacture of leather products rose from $23 million in 1939 to $303 million in 1978, or a "real" increase of 166 per cent after adjustment for price inflation. At the same time, textiles jumped from $40 million to $182 million (51 per cent), rubber and plastics from a very small value to $81 million, apparel from $1 million to $76 million (2350 per cent), chemicals from $1 million to $41 million (800 per cent), and miscellaneous manufactures from $1 million to $18 million.

Shoe manufacturing appears to be surviving fairly well now, particularly in hand-sewn footwear, in spite of competition from factories in the South and abroad. The industry is considering adoption of computerized design of lasts, which could improve its adaptability to quick-changing fashions. Textile manufacturing, on the other hand, has suffered a continuous decline which seems to be irreversible. The future of chemical production in Maine depends primarily on the prospects of the paper industry, to which it is closely tied.

Table 12
Nondurables Manufacturing in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**528**	**470**	**−11**
Leather Products	295	233	−21
Textiles	136	101	−26
Rubber and Plastics Products	36	54	+50
Apparel	32	48	+14
Chemicals	21	24	+14
Miscellaneous	8	10	+25
Employment[6]	(Thousands of Persons) 1970	1980	(% Change) 1970–80
Total	**45.2**	**39.3**	**−13**
Leather Products	24.7	18.8	−24
Textiles	11.5	9.6	−16
Rubber and Plastic Products	3.6	5.2	+44
Apparel	3.8	3.6	− 5
Chemicals	0.9	0.8	−10
Miscellaneous	0.7	1.3	+81

The manufacture of rubber and plastics products, apparel, and miscellaneous products (mostly sporting goods, brushes, and a variety of small products) has been successful largely because of relatively low labor costs and high marketing skill in this state.

Defense Industries

Defense industries in Maine consist primarily of shipbuilding (Bath Iron Works and Kittery Naval Shipyard), military bases (Loring Air Force Base and Brunswick Naval Air Station), the manufacturing of machine guns and electronic components (contained within fabricated metals and electronic equipment described elsewhere in this report). Within the last decade, transportation equipment manufacturing (mostly shipbuilding) rose 105 per cent with respect to labor and proprietors' income, and 58 per cent in employment. This industry reported a value added by manufacture of $120 million in 1978. It has advanced rapidly since then, and its future appears secure for the foreseeable future. Although income and employment derived from military bases in Maine declined during the last decade, they are likely to rise again due to impending construction of a large radar installation near Bangor. (See Table 13 below.)

Table 13
Defense Industries in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**261**	**326**	**+ 25**
Transportation Equipment Manufacturing	87	178	+105
Federal Government, Military	174	148	− 15
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**16.6**	**17.3**	**+ 4**
Transportation Equipment Manufacturing	4.6	7.3	+58
Federal Government, Military	12.0	10.0	−17

Metals and Machinery Manufacturing

Metals and machinery manufacturing is one of the most successful industry groups in Maine, having increased 54 per cent during the last decade in regard to labor and proprietors' income and 66 per cent in employment. All the major industrial components—electric and electronic equipment, fabricated metals and ordnance, and machinery—rose very rapidly during that period. Of the two minor industries represented, instruments increased considerably but primary metal products declined. (See Table 14 below.)

The value added by manufacture of machinery (largely engines, computers, and metalworking machinery) jumped from $6 million in 1939 to $163 million in 1978—a "real" increase of 693 per cent. At the same time, fabricated metals (mainly structural steel and ordnance) rose from $3 million to $69 million (329 per cent). The value added by the manufacture of electrical and electronic equipment (principally electrical distributing equipment and electronic components) totalled $163 million in 1978. The value added by instruments amounted to $11 million, while primary metals were not reported. The success of most of these industries may be attributed primarily to the availability of skilled labor such as machinists, as well as low-wage unskilled labor for the assembly of electronic components and other products. Although Maine already has some true "high-technology" plants, major expansion of these industries would require a much greater concentration of engineers and research facilities than the State now has, such as one finds along Route 128 near Boston. Expansion of our vocational schools will probably be needed to prevent shortages of highly skilled labor in the future.

Table 14
Metals and Machinery Manufacturing in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**189**	**291**	**+ 54**
Electric and Electronic Equipment	66	115	+ 75
Fabricated Metals and Ordnance	51	79	+ 55
Machinery, excluding Electrical	49	78	+ 59
Instruments	4	11	+175
Primary Metal Products	19	8	− 58
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**11.5**	**19.1**	**+ 66**
Electric and Electronic Equipment	4.9	7.8	+ 60
Fabricated Metals and Ordnance	2.9e	4.4	+ 55e
Machinery, excluding Electrical	2.4	5.7	+132
Instruments	0.4e	0.7	+ 86e
Primary Metal Products	0.9	0.5	− 44

e–estimated by CRAS

Insurance Carriers

Insurance carriers (as distinguished from insurance agents and brokers) are considered an "export" industry because a significant part of their customers live out of this state. Labor and proprietors' income derived from this industry rose from an estimated $76 million in 1970 to $78 million in 1980—an increase of 3 per cent. At the same time, employment in this industry rose from 3600 to 4300—a 20 per cent increase. The future of insurance carriers in Maine appears promising due in part to lower wage rates here.

Service Industries

Service industries (broadly construed as those which serve state residents primarily) constitute by far the largest and fastest growing sector of Maine's economy. They represent almost two-thirds of the state's total income and employment, and have grown over 20 per cent during the last decade. The largest components of this sector are civilian government, services, and trade, of which services are by far the fastest growing. Of lesser magnitude are transportation and utilities, contract construction, finance and real estate, printing, and manufacture of petroleum products (paving). Self-employed persons are assumed to be mostly in retail trade and small services. It is questionable

whether the service industries in general can continue the rapid growth rate indefinitely. (See Table 15 below.)

Table 15
Service Industries in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**3310**	**3963**	**+20**
Civilian Government	894	1044	+17
Services	690	1020	+48
Trade	822	894	+ 9
Transportation and Utilities	340	385	+13
Contract Construction	372	382	+ 3
Finance and Real Estate	145e	183e	+26e
Printing and Petroleum Products Manufacturing	47	55	+17

Employment[6]	(Thousands of Persons) 1970	1980	(% Change) 1970–80
Total	**237.3**	**306.7**	**+29**
Civilian Government	66.4	83.3	+25
Services	37.7	65.2	+73
Trade	54.1	67.7	+25
Transportation and Utilities	17.6	18.7	+ 6
Contract Construction	16.8	19.5	+16
Finance and Real Estate	8.7	12.6	+45
Printing and Petroleum Products Manufacturing	2.9	3.8	+28
Self-Employed	33.1	35.9	+8

e-estimated by CRAS

Civilian Government

Civilian Government is the largest component of the state's service industries. During the last decade, labor and proprietors' income from this source grew 17 per cent and employment rose 25 per cent. State and local governments have been much larger and faster growing than federal civilian government in Maine. Due to continuing financial constraints, future growth is likely to be slow. (See Table 16 below.)

Table 16
Civilian Government in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**894**	**1044**	**+17**
State and Local	588	704	+20
Federal, Civilian	306	340	+11
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**66.4**	**83.3**	**+25**
State and Local	50.5	65.1	+29
Federal, Civilian	15.9	18.2	+14

Services

Services (as shown in Table 17) form one of the largest and fastest growing industry groups in Maine. Collectively they increased 48 per cent in regard to labor and proprietors' income, and 73 per cent in employment during the last decade. Over three-fourths of this group consists of professional and social services (principally health, education, social, legal, and membership organizations). Next in importance are business and repair services, which doubled in income and increased 83 per cent in employment. Personal services (mainly household, laundry, beauty and barber shops, and funeral services) declined in both income and employment. Amusements and recreation, by far the smallest of these services, have increased moderately. The most rapid growth has occurred in health services, which now receive over $1 billion per year. It is not likely that future growth in the health industries can continue at the same rate.

Between 1939 and 1977, sales of Maine's business and repair services jumped from $5 million to $36 million. At the same time, personal services rose from $9 million to $65 million, and amusements and recreation increased from $5 million to $43 million. (No price indices for these services were computed in 1939.) It appears now that most of these services will continue to expand at a rate faster than population growth.

Trade

Trade is a large but relatively slow growing sector of the state's economy. Retailing, excluding eating and drinking places (which were included in tourism previously), experienced no change in real income during the last decade,

Table 17
Services in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**690**	**1020**	**+48**
Professional and Social Services	505	790	+56
Business and Repair Services	68	133	+96
Personal Services	100	78	−22
Amusement and Recreation	17	19	+12
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**37.7**	**65.2**	**+73**
Professional and Social Services	28.9	53.0	+83
Business and Repair Services	4.2	7.2	+73
Personal Services	3.1	3.0	− 4
Amusements and Recreation	1.5	2.0	+30

but did advance 28 per cent in employment. On the other hand, wholesaling rose more than 20 per cent in regard to both income and employment. (See Table 18 below.)

Table 18
Trade in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**822**	**894**	**+ 9**
Wholesale	265	338	+28
Retail*	557	556	0
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**54.1**	**67.7**	**+25**
Wholesale	15.9	18.7	+18
Retail*	38.2	49.0	+28

*excluding eating and drinking places

Between 1939 and 1977, wholesale receipts jumped from $166 million to $2,831 million, about 250 per cent in constant dollars. During the same period, retail sales rose from $281 million to $3,616 million (195 per cent). The greatest growth in retail sales took place in new shopping centers constructed throughout the State. The most significant kinds of business with respect to sales are now food stores, automotive dealers, miscellaneous stores, general merchandise stores, and building materials stores. The fastest growing stores in regard to sales since 1939 are automotive dealers, building materials stores, general merchandise stores, gasoline service stations, furniture and home furnishings stores, and drug stores. It is likely that both wholesale and retail trade will expand at about the same rate as the population grows.

Transportation and Public Utilities

Among service industries, transportation and public utilities grew moderately with respect to both labor and proprietors' income and employment during the last decade. Within the transportation sector alone, railroading suffered a decline while trucking and warehousing grew fairly rapidly, and all the other modes even faster (over 30 per cent). At the same time, communication (telephone, radio, and television) increased rapidly, while electric, gas, and sanitary services rose slightly. It appears now that railroading will stabilize or possibly increase (if coal hauling rises considerably), and that the other transportation modes will rise at about the same rate as population growth. Communication and utilities are likely to increase moderately, too. (See Table 19 below.)

Contract Construction

Contract construction is a significant but fairly slow growing industry in Maine. Since 1970, labor and proprietors' income attributable to this industry increased only 3 per cent, or from $372 million to $382 million in constant dollars. During the same period, construction employment increased 16 per cent—from 16,800 persons in 1970 to 19,500 in 1980. Between 1940 and 1980 the value of all construction contracts awarded in Maine jumped astronomically from only $14 million to $537 million, or about 430 per cent in constant dollars.[11] During the 1960s, 22,000 housing units were built and 16,000 mobile homes entered the State. During the next decade, these figures rose to 51,000 housing units and 25,000 mobile homes. At present, housing construction is in a severe slump caused primarily by high interest rates and prices. Future income and employment related to construction are likely to rise at a somewhat slower rate than the population, due to what may be a reduction in size of new homes, as well as governmental cutbacks in the construction of various public works.

Finance and Real Estate

Finance and real estate grew 26 per cent in regard to labor and proprietors' income during the last decade, and 45 per cent in employment. Banking,

Table 19
Transportation and Public Utilities

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**340**	**385**	**+13**
Railroad Transportation	72	49	−32
Trucking and Warehousing	87	108	+24
Water Transportation	7	40	+33
Air and Other Transportation	23		
Communication	89	119	+34
Electric, Gas, and Sanitary Services	62	69	+11

Employment[6]	(Thousands of Persons) 1970	1980	(% Change) 1970–80
Total	**17.6**	**18.7**	**+ 6**
Railroad Transportation	4.4e	3.2e	−27
Trucking and Warehousing	4.0	4.4	+11
Water Transportation	0.4	0.6	+58
Air and Other Transportation	1.5	2.3	+46
Communication	4.5	5.2	+14
Electric, Gas, and Sanitary Services	2.8	3.0	+ 9

e–estimated by CRAS

insurance, and real estate agencies increased even faster, while other finance (credit agencies, security and commodity brokerages) grew at slower rates. It appears likely that this industry will continue to expand at a somewhat faster rate than the population. (See Table 20 below.)

Printing and Petroleum Products Manufacturing

Printing and petroleum products manufacturing have been included within the service industries because their customers are located largely within the state. Printing and publishing experienced a moderate growth rate since 1970, and are likely to continue at a rate comparable with population growth. About two-thirds of this industry is composed of newspaper publishing, and the remainder of commercial printing, periodicals, and books. Value added by manufacture rose from $5 million in 1939 to $74 million in 1978. (No price indices are available to estimate "real" change. See Table 21 below.)

Table 20
Finance and Real Estate in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**145e**	**183e**	**+26**
Banking	64	86	+34
Other Finance, Insurance*, and Real Estate Agencies	81e	97e	+20
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**8.7**	**12.6**	**+45**
Banking	4.4	6.9	+57
Other Finance, Insurance*, and Real Estate Agencies	4.4 3.1	1.3 4.4	+ 8 +42

*excluding Insurance Carriers reported elsewhere.
e–estimated by CRAS.

Petroleum and coal products manufacturing is a small industry producing paving mixtures and blocks for the state's construction industry. As such, its future is tied closely to that of construction.

C. FACTORS AFFECTING ECONOMIC GROWTH

The principal factors encouraging or preventing "export" industries from locating new plants and other facilities or expanding existing ones in Maine, rather than in some other state, are as follows:[12]

1. The work force
2. Need and availability of capital
3. Resourcefulness of management
4. Access to materials and markets
5. Fuel, power, and water
6. Services to industry—business and governmental
7. Sites for new industry
8. Living Conditions

The export industries affected by the factors listed above in turn determine the level of growth in other industries, which serve them and the State's population.

Table 21
Printing and Petroleum Products Manufacturing in Maine

Labor and Proprietors' Income[3]	(Millions of 1980 Dollars) 1970	1980	(% Change) 1970–80
Total	**47**	**55**	**+ 17**
Printing and Publishing	45	51	+ 13
Petroleum and Coal Products Manufacturing	2	4	+100
Employment[6]	**(Thousands of Persons) 1970**	**1980**	**(% Change) 1970–80**
Total	**2.9**	**3.8**	**+28**
Printing and Publishing	2.8	3.6	+27
Petroleum and Coal Products Manufacturing	0.1e	0.1e	+39e

e–estimated by CRAS

Work Force

The efficiency and availability of the work force is by far the most significant factor in the state's competitive position, because labor costs represent almost half (46 per cent in 1977) of Maine's total value added by manufacture. Of course, there is considerable variation from one industry to another. For example, labor costs are less important to the capital-intensive paper industry than to the labor-intensive shoe industry.

Although a highly productive labor force is part of the Maine mystique, that is difficult to prove or disprove. Productivity, as it is usually measured, is an imperfect indicator of the relative efficiency of labor because it combines the effect of labor, capital investment, and managerial skill. When measured in respect to value added by manufacture per hour worked by production workers, Maine's industrial productivity rose 69 per cent between 1972 and 1977—slightly faster than the comparable U.S. rate of 65 per cent.[13] This rise probably represented a slight increase in real productivity, after adjustment for the average increase of 63 per cent in producer prices. Maine industries with the greatest productivity increases were metalworking machinery, chemicals, engineering and scientific instruments, paper, logging, manmade fibers, yarn and thread, and fabricated metal products. Almost all of Maine's manufacturing industries have lower values added per employee-hour than do their national counterparts. The only exceptions are this state's firms producing yarn or thread, logging, wood building, wood household furniture,

converted paper products, miscellaneous machinery, shipbuilding and repairs.

The principal reason for Maine's lower-than-average value added per employee-hour is this state's lower wage rates in most industries. Maine ranked 47th among all states in 1980 in this regard. Also, there is usually a different mix of high-wage and low-wage industries within each group. In 1979, the only industries in Maine which had wages above national norms were paper (118 per cent of U.S.), stone, clay, and glass products (103 per cent), apparel (103 per cent), leather products (100 per cent), and agricultural services, forestry, and fisheries (121 per cent). In 1970, only one Maine industry (paper) had average wages above the U.S. average for that industry. There is a possibility that the five high-wage industries in Maine which were mentioned above may become less competitive with those of other states.

Maine's occupational mix has changed considerably since 1940. "White-collar" workers doubled in number while "blue-collar" workers increased only 44 per cent. The fastest growing occupations among white-collar workers are professional and technical (up 239 per cent), clerical (+212 per cent) and sales (+131 per cent), while managers, officials and proprietors increased only 66 per cent. Among blue-collar workers, service employees increased 247 per cent, craftsmen and foremen 119 per cent, and operatives 24 per cent. On the other hand, private household workers dropped 78 per cent, farm laborers and foremen 53 per cent, and nonfarm laborers fell 24 per cent.

Work stoppages generally have been relatively fewer in Maine than in the country as a whole. In 1980 there were 19 stoppages averaging 40 days, which involved 3,900 workers. Days idle that year totalled 111,800, or only 0.11 per cent of estimated total working time (in contrast to the U.S. rate of 0.14 per cent). Maine's labor union membership of 101,000 persons in 1980 was slightly lower than the U.S. norm—24.1 per cent of total employment in Maine versus 25.2 in the United States. The share of this state's population 25 years of age and over who were high school graduates grew from only 28.4 per cent in 1940 to 68.5 per cent in 1980 —somewhat above the national average of 66.3 per cent. This figure is considerably above that of some southern states (such as North Carolina—55.3 per cent and Mississippi—55.1 per cent) with which we sometimes compete for industries.

One labor cost item which is now under intense scrutiny by the Legislature is workers' compensation. The evidence is not clear whether Maine's high rates are due to a higher degree of hazardous industries, lack of safety precautions, inflated benefits, or inefficient administration. Unemployment compensation also is a significant labor cost item, since a $36 million loan to the State from the U.S. Department of Labor must be repaid.

The future demand for labor in Maine is projected to increase by about 130,000 persons by 1990, according to figures cited earlier in this report.[2] At the same time, the total population is expected to rise by 83,000, according to

the same source. These two projections obviously are inconsistent—the population increase would have to be much greater to justify the stated employment force by age and sex. There may be shortages of technically trained workers unless vocational programs are strengthened.

Need and Availability of Capital

The need and availability of capital also are important determinants of industrial location and expansion. Although current unfilled capital needs of Maine firms are not known, outstanding loans for commercial and agricultural purposes in the state totalled $784 million in 1980, while real estate loans (industrial, commercial, and residential) amounted to $3,235 million and installment (consumer) loans totalled $892 million. Total loans by Maine's financial institutions rose from $269 million in 1950 to $4,841 million in 1980. It is assumed that capital needs of small companies (89 per cent of Maine's total of 23,385 firms in 1980) are most urgent, because the large companies with out-of-state headquarters presumably have easier access to the capital markets of Boston and New York. Possibly permission for out-of-state banks to take over Maine's banks may increase the supply of capital for the state's industries.

The supply of capital available for investment in the state's industries, commercial establishments, and homes includes *deposits* in Maine's financial institutions (which grew from $719 million in 1950 to $6,232 million in 1980), and investments in stocks, bonds, mutual funds, and life insurance. For example, it was estimated that 170,000 residents of Maine owned shares listed on the New York Stock Exchange in 1975. These shareowners constituted 16.2 per cent of our population, in contrast to a lower figure, 11.8 per cent, for the U.S. as a whole. In addition to the state's commercial and savings banks, savings and loan associations, and credit unions, other suppliers of capital include the Maine Capital Corporation, Maine Guarantee Authority, several local and regional investment firms, the Small Business Administration, and individual investors. At this moment, high interest rates and the marginal viability of borrowers are probably greater impediments to business investment than is the lack of capital.

Resourcefulness of Management

The resourcefulness of management is best measured by profits but there are, unfortunately, no published data on corporate profits by state. However, one indirect indication of managerial effectiveness is the amount of capital investment in specific industries. Since 1945, all manufacturing companies in Maine have invested a total of $4.9 billion for plant modernization and equipment.[11] Over 60 per cent of this amount ($3.0 billion) was invested by the paper industry alone. Other leading industries in this respect are lumber and

wood products, food products, transportation equipment, textiles, shoes, and electrical equipment. The amount of expansion in production experienced by most of these industries would have been impossible without the great capital outlays they incurred.

Another indication of managerial resourcefulness is the degree of exporting by manufacturing firms. Exports of Maine firms totalled $314 million in 1980 or 4.3 per cent of the total value of product (which was less than half of the U.S. figure of 10.8 per cent). Industries with the highest incidence of exporting include machinery, electric and electronic equipment, instruments, chemicals, lumber and wood products, and fabricated metal products.

Research and development activities are an absolutely essential prerequisite for new industrial products and processes. Although it is not known how much Maine firms spend for this purpose, part of it is included in the $1 million received by the University of Maine system for industrial research contracts in 1981. Another indirect indication is that Maine had 1147 doctoral scientists and engineers in 1979. This number constituted only 0.3 per cent of the U.S. total—far less than our total population share of 0.5 per cent.

The ultimate negative measure of managerial efficiency is business failure. In 1980, there were 62 industrial and commercial failures in Maine with current liabilities of $23.6 million. Our failure rate that year was 45.6 per 10,000 listed concerns, in contrast to the U.S. rate of 42. Maine's failure rate fell from 61.6 in 1940 to a recent low of only 13.2 in 1978, then rose to 45.6 in 1980.

Organizations such as the New Enterprise Institute and its Small Business Development Centers, as well as the Schools of Business within the University of Maine system, are devoted to improving managerial skills and resourcefulness in Maine.[14]

Access to Materials and Markets

Easy access to materials and markets is an essential factor in the production and marketing of goods by the state's firms. According to the U.S. Census of Transportation, Maine manufacturers received $3.2 billion of goods weighing 7.7 million tons from all parts of the country in 1977 (in addition to part of the intrastate movements of $824 million and 15 million tons). The primary sources of these interstate receipts (measured by value) were the Middle Atlantic (34 per cent), East North Central (20 per cent), other New England (18 per cent), and South Atlantic (10 per cent) states. The bulk of these receipts (measured by weight) consisted of lumber and wood products (mostly intrastate), petroleum, food products, stone, clay, and glass products, pulp and paper (partly intrastate), and chemicals. Over half (57 per cent by weight) of these receipts arrived by motor carrier, 20 per cent by water, 11 per cent by rail, and 11 per cent by private truck. (See Figure 12.)

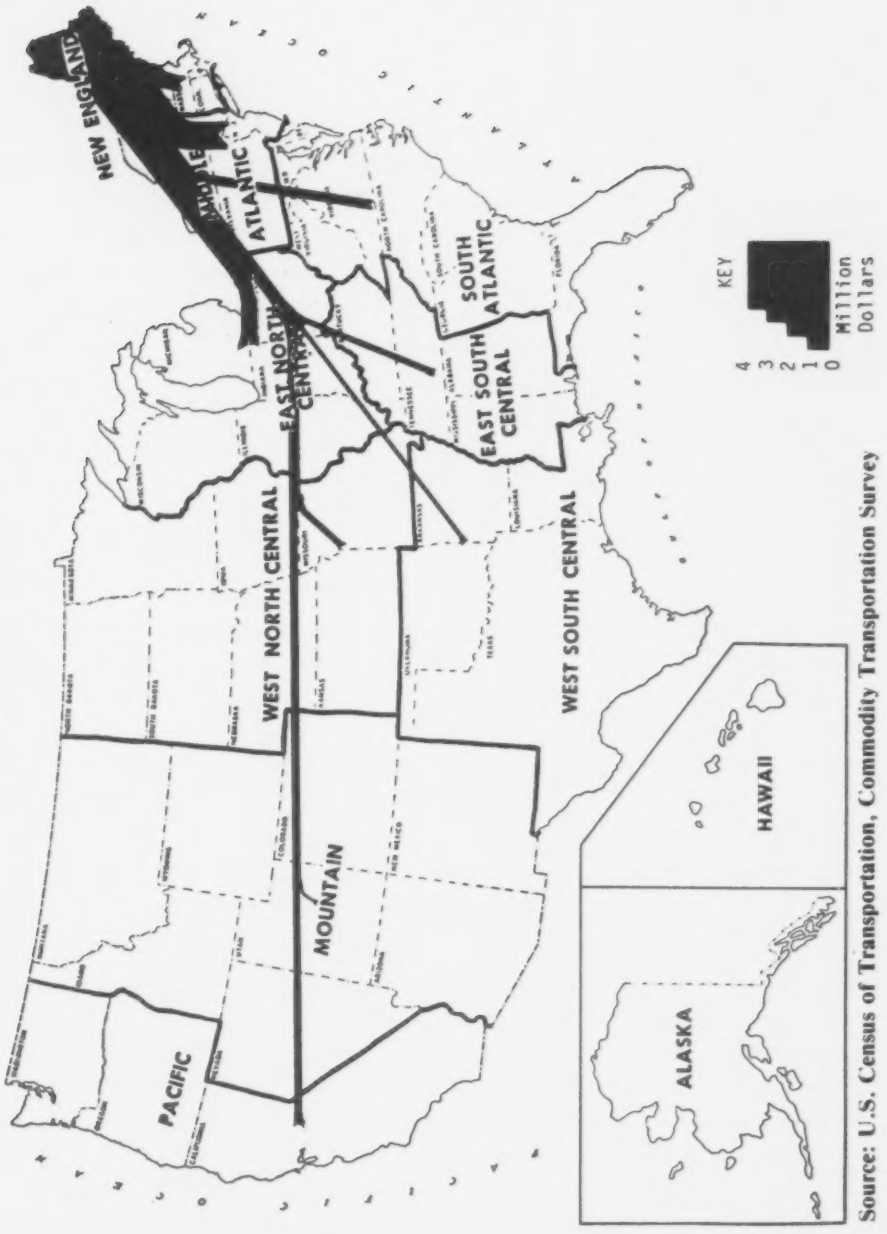


Figure 12
Shipments to Maine—1977

Source: U.S. Census of Transportation, Commodity Transportation Survey

Maine's manufacturers shipped $4.2 billion of goods weighing 5.5 million tons (plus part of the intrastate movements) to all sections of the country in 1977. Primary markets were other New England states (35 per cent), Middle Atlantic (26 per cent), East North Central (14 per cent), and South Atlantic (11 per cent) states. (See Figure 13.) Although statements often are made that "Maine is at the end of the pipeline," in actuality we have relatively easy access to the rich Northeastern and South Atlantic markets. The greatest sin-

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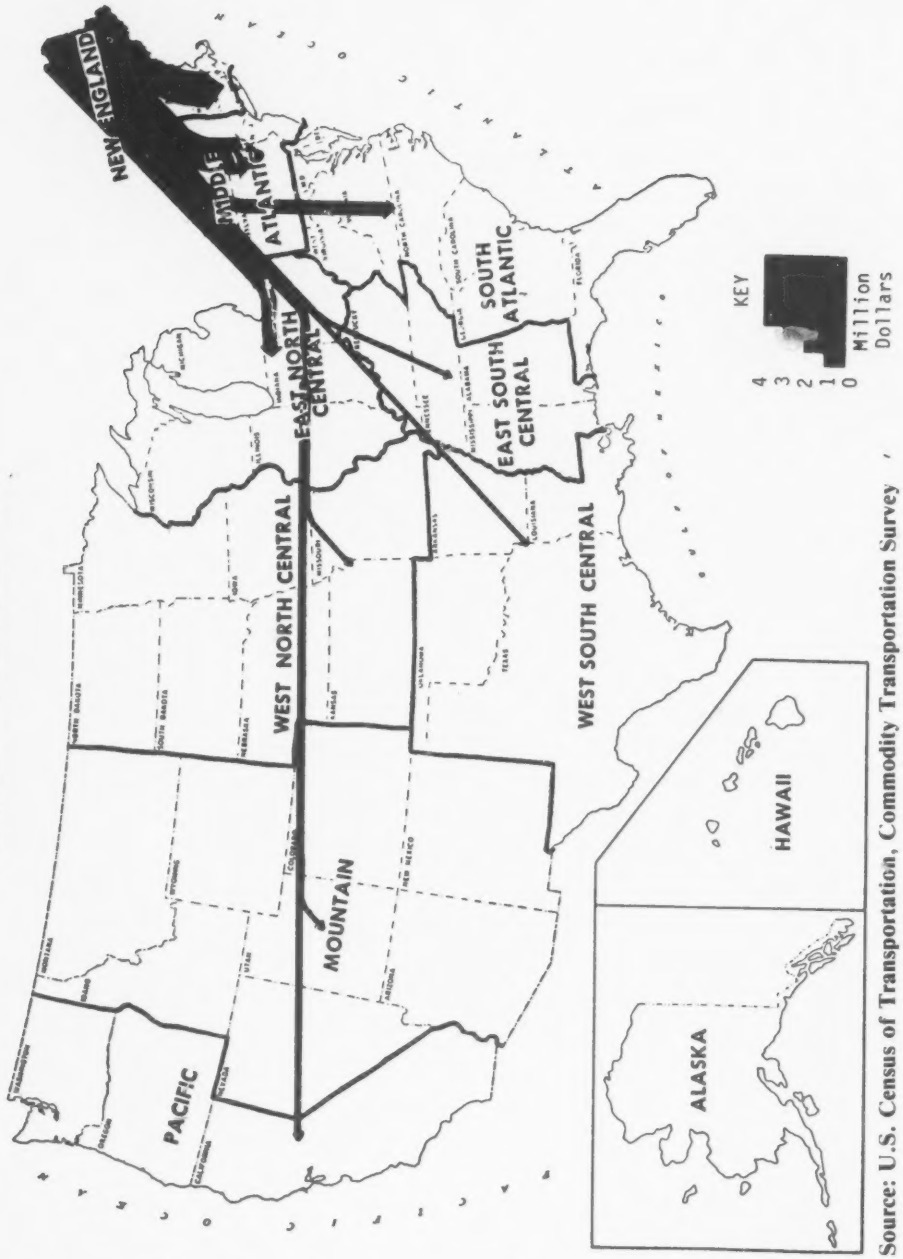

Figure 13
Shipments from Maine—1977

Source: U.S. Census of Transportation, Commodity Transportation Survey

gle market—New York City—is only an overnight haul from Maine. Most of these shipments (as measured by weight) consisted of lumber and wood products, pulp and paper, and petroleum (all of which included a large share of intrastate movements), plus food products, stone, clay and glass products (mostly cement, sand, and gravel), shoes, and many others. Two-thirds (66 per cent) of these shipments were sent by motor carrier, 21 per cent by rail, 12 per cent by private truck, and 1 per cent by water and air. Since 1940, there has

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been a great shift in cargo transportation from rail and water to trucks (both private and certified motor carriers).

Exports from Maine to eastern Canada rose from only $45 million in 1965 to $233 million in 1981. Most of this traffic consisted of various types of machinery, forest products, and crops (especially fresh vegetables and fruits). At the same time, imports from Canada increased from $155 million to $603 million. During the latter year, over half (54 per cent) consisted of woodpulp, 11 per cent were seafood products; 4 per cent, petroleum; lumber, paper, chemicals, and machinery were each 3 per cent; only 1 per cent vegetables including potatoes; and 18 per cent, all other goods. These products move to, from, and through Maine mostly by truck and ferry. Considerable resentment has been expressed in recent years at imports of Canadian seafood and potatoes. These imports represented about 70 per cent and 6 per cent, respectively of Maine's total production of these products in 1981. Further study is needed to determine whether Maine producers are really victims of unfair discrimination due to alleged Canadian Subsidies or other reasons.

The mileage of Maine's state highway system rose 24 per cent from 9097 in 1940 to 11,312 in 1980. At the same time, motor vehicle registrations jumped 268 per cent from 210,000 to 771,000. Average daily traffic at automatic recorder stations throughout the State rose 837 per cent, from 30,000 vehicles in 1948 to 284,000 in 1980, while the number of licensed drivers increased 124 per cent, from 326,000 to 730,000. During the same period, annual traffic on the Maine Turnpike skyrocketed 990 per cent from 1,516,000 to 16,518,000 vehicles. Although commercial vehicles now form only 11 per cent of the total, they increased faster in number (1341 per cent) than did automobiles (959 per cent). The State Highway System is now in a financial crunch due to declining revenues from the gasoline tax and the rising cost of maintaining and rebuilding roads. It is obvious that additional sources of revenue must be found if the state's highways and bridges are not to deteriorate further.

The potential effects of motor carrier rate deregulation are not yet widespread, except for the demise of several out-of-state certified carriers and the creation of many small truck firms. In theory, high-volume areas should experience better service and lower rates, while low-volume centers may suffer worse service and higher rates.[15]

Revenue traffic of Maine's two major railroads (Maine Central and Bangor & Aroostook) dropped 10 per cent, from 12,931,000 tons in 1947 to 11,589,000 in 1980. In addition, the Canadian Pacific Railway carries over 3 million tons across Maine; Canadian National, over 1 million tons; two short lines (Aroostook Valley and Belfast & Moosehead Lake), about 100,000 tons; and the Boston & Maine, a considerable volume of freight between Portland and lower New England. Maine Central depends on pulp and paper for 45 per cent of its tonnage; lumber and wood products for 16 per cent; petroleum, 10 per cent; stone, clay, and glass products, 8 per cent; food products, 6 per

cent; and farm products, 5 per cent. Trailer-on-flatcar ("piggyback") shipments totalled only 14,000 tons in 1980. Bangor & Aroostook also is heavily dependent on lumber (36 per cent), paper (34 per cent), petroleum (19 per cent), and chemicals (6 per cent), while it has lost all of its potato traffic (which amounted to 1.4 million tons in 1948).

The current owner of the Maine Central Railroad is attempting to buy the bankrupt Boston & Maine and Delaware & Hudson Railroads and to consolidate service via the three carriers. This consolidation could improve service and lead to some economies. It could also offer a competitive alternative to the ponderous Conrail system for much of the traffic moving between Maine and the West and South. The Bangor & Aroostook could be joined to the proposed consolidated system at a later date, but there are no announced plans to do so at this time.

Cargo received or shipped at Maine's ports jumped from 9 million tons in 1947 to a peak of 35 million in 1971, then dropped to 16 million in 1979. This fluctuation was due primarily to changes in crude oil receipts at Portland, which rose from 3 million tons in 1947 to 25 million in 1971 and then slipped to six million in 1979 because of completion of a competing pipeline from Alberta to Montreal. Most of the remaining traffic at the major ports of Portland, Searsport, and the Penobscot River consists of receipt of petroleum products from Venezuela and from the U.S. Atlantic and Gulf Coasts. Dry cargo has practically disappeared from these ports, although the State is now attempting to develop a new facility at Searsport for paper products, and a private company is building a pier in Portland to handle coal and other bulk commodities.

Airline passenger traffic at Maine's airports jumped 285 per cent, from 272,000 in 1966 to 1,119,000 in 1979, and then dipped slightly to 1,047,000 in 1980. Freight and express handled at the state's airports is minimal—it rose from only 664 tons in 1962 to 2258 in 1979. At the same time, U.S. and foreign mail increased from 135 tons to 396. Recent expansions in facilities at Portland and Bangor Airports, which now handle 53 per cent and 31 per cent, respectively, of the state's airline passengers, appear to be ample for many years. One significant lack is direct airline service to Atlantic Canada and Montreal.

Fuel, Power, and Water

Fuel, power, and water also are necessities for any industrial enterprise. Direct consumption of energy for all industrial purposes in Maine rose 68 per cent from 41 trillion Btu in 1960 to 69 trillion in 1979.[16] Almost two-thirds (64 per cent) of this energy was in the form of residual petroleum, 30 percent in electricity, and the balance in coal, natural gas, and other petroleum fuels. During the same period cited above, the total recorded cost of fuel and power

to industry soared 457 per cent, from $59 million to $331 million. (See Figure 14.) Unit prices in Maine of all fuels combined (except coal) more than doubled—from 12.27 per million Btu to $4.82. (See Figure 15.) At the same time, national unit prices rose considerably faster (452 per cent), from $0.71 to $3.92. In other words, Maine's disadvantage in unit fuel prices for industry fell from 3.2 times the U.S. average in 1960 to only 1.2 times the average in 1979. This disadvantage will be reduced further when the price of natural gas is deregulated in the future, because the subsequent rise in price of this fuel will hit the heavy users in the Great Lakes and Mississippi Valley states much harder than it will Maine. The state's paper companies are now shifting from heavy dependence on petroleum to less costly wood waste and coal. This industry is the prime exponent in Maine of co-generation (the production of steam for generation of power and subsequent use in "cooking" pulp and drying paper).

It appears likely that there will be greater reliance on coal, wood, and hydropower in the future, than on petroleum, which now supplies three-fourths of Maine's total supply of energy. It is also possible that a natural gas pipeline may be built from the Atlantic Provinces through Maine to Massachusetts, in the event that sufficient supplies of gas are developed in the ocean off Nova Scotia. In this case, many Maine industries and homes may be converted to use of gas. Further energy conservation measures will be needed by industry and other users in order to combat the ever-rising cost of fuel.

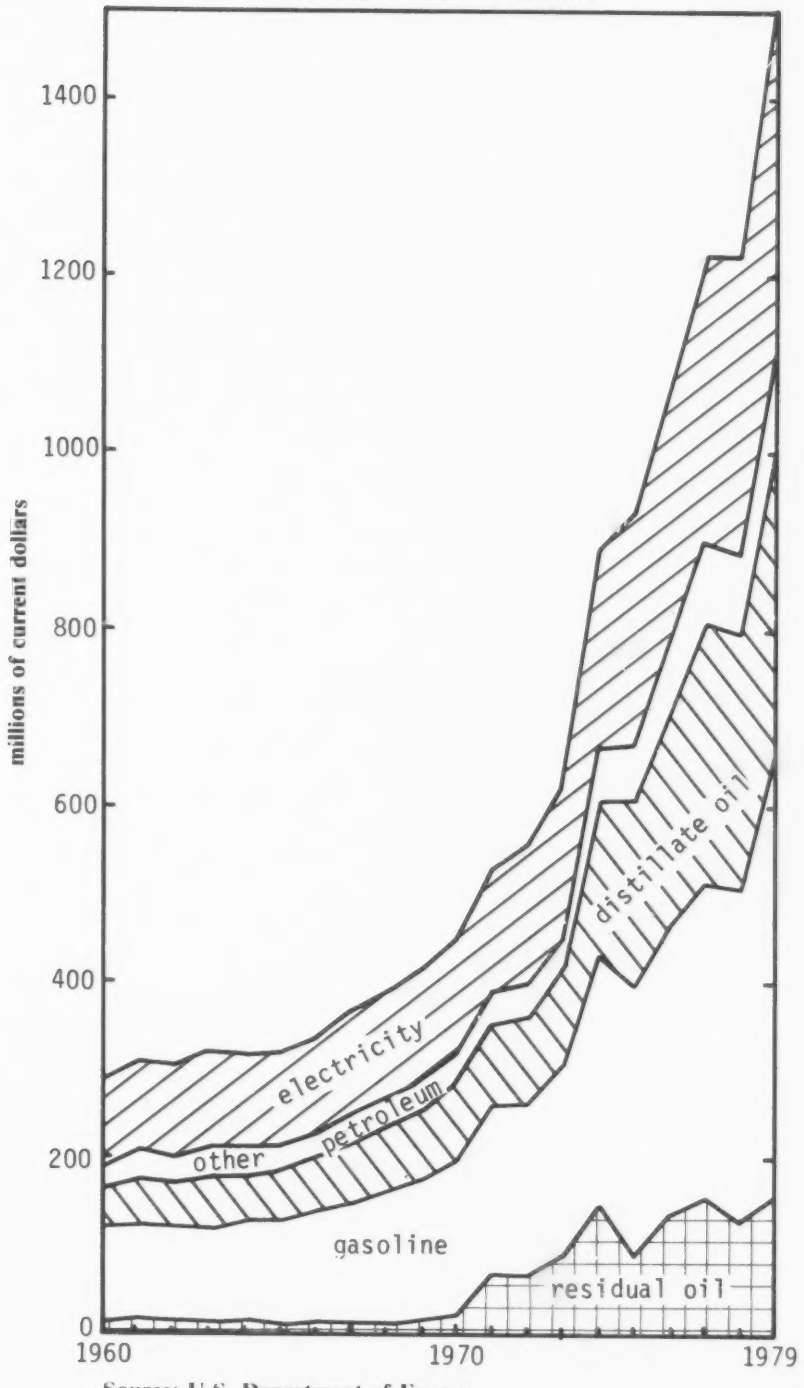
Maine's pulp and paper mills also are heavy users of water for processing and boiler feed. Therefore, they are usually located near major rivers. Although their effluent was a major source of water pollution in the past, sizable investment in new processes and controls has resulted in the virtual elimination of pollution from this source. The paper industry alone used 92 per cent of the recorded total of 169 million gallons of water utilized by industry throughout the state in 1973. The other industrial users were chemicals, textiles, foods, rubber and plastics, and shoes. Water supplies appear ample for the types of industry Maine is likely to attract in the future.

Services to Industry—Business and Governmental

Services to industry are important influences on the location of particular types of business. Receipts of miscellaneous private business services in Maine rose from $1.3 million in 1939 to $70 million in 1977. Major components are now management consulting and public relations services (15 per cent), equipment rental and leasing (14 per cent), services to buildings (10 per cent), protective services (7 per cent), photofinishing (7 per cent), advertising (6 per cent), data processing (6 per cent), temporary help supply (5 per cent), credit reporting and collection (4 per cent), and commercial research and development (3 per cent). Maine's per capita receipts of business services increased from $12 in 1939 to $64 in 1977, while U.S. receipts for this industry rose from

Figure 14

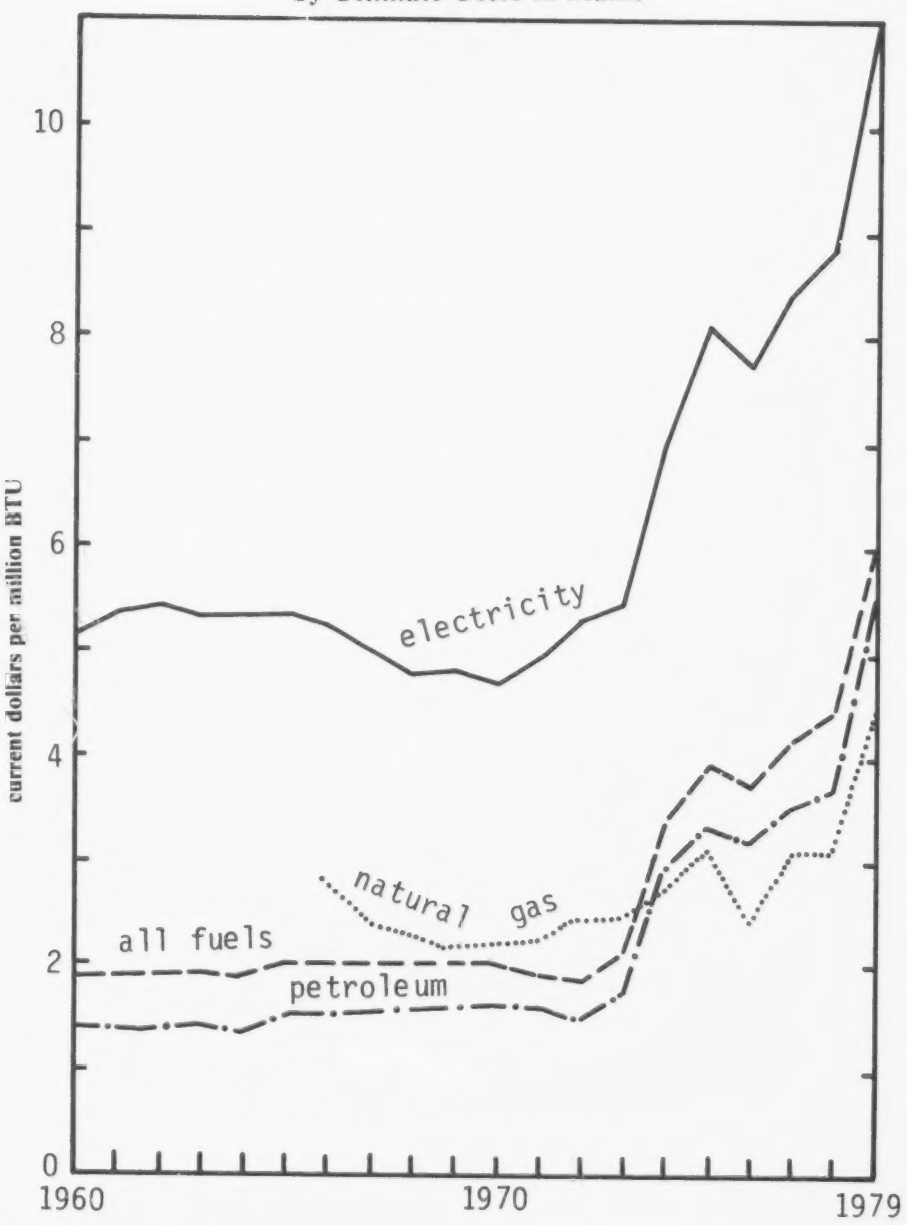
Payments Made for Energy by Ultimate Users in Maine



Source: U.S. Department of Energy

Figure 15

Unit Prices Paid for Energy by Ultimate Users in Maine



Source: U.S. Department of Energy

$57 to $252. U.S. per capita receipts thus are still four times as large as those in Maine, which means that our industries have a much smaller available variety of services.

Public services to business may be measured in part by capital outlays by state and local governments, which totaled $2.6 billion since 1960.[16] The largest components were highways ($1,128 million), local schools ($372 million), sewerage ($287 million), water supply ($180 million), higher education ($118 million), and hospitals ($79 million). An efficient infrastructure of transportation and utilities is essential for the conduct of any business, as well as for many social purposes. Likewise, good schools, hospitals, and other public facilities are needed to provide an educated and contented labor force.

Federal outlays also have had a significant impact on Maine's economy and government. Direct federal payments to state and local governments rose from $151 million in 1964 to $486 million in 1980. During the latter year, one-third of the total was used for public welfare, 15 per cent for education, 9 per cent for general revenue sharing, and 41 per cent for highways, sewerage, and other purposes. In addition to outlays to state and local governments, the federal government has paid tremendous sums in Maine for military bases and personnel, defense contracts and other purchases, and direct payments to individuals for Social Security, Medicare, pensions, and interest on U.S. bonds. Federal outlays for all purposes in Maine rose from $611 million in 1967 to $2,577 million in 1980.

Per capita outlays by all state and local governments in Maine totaled $161 in 1980 (much lower than the U.S. average of $234), while per capita operating expenditures totaled $1244 (compared with $1388 for the United States). Major per capita expenditures for capital and operations in Maine were for education ($484 vs $588 in U.S. as a whole), public welfare ($235 vs $201), and highways ($188 vs $147). Much smaller per capita expenditures in Maine were made for health and hospitals ($64), police ($38), fire ($25), corrections ($20), sewerage ($27), housing ($15), parks ($56), financial administration ($35), general control ($25), and interest on the debt ($57).

The "flip side" of the provision of good public services is the collection of taxes needed to pay for them. General revenue collected by state and local governments in Maine rose from $213 million in 1960 to $1194 million in current dollars in 1980.[17]

During this period, per capita general revenue collections in Maine almost doubled from $448 to $862 in constant dollars, while these revenues also rose from 9.9 per cent of the gross state product in 1960 to a peak of 13.9 per cent in 1976 and then declined to 12.5 per cent in 1980. Maine's per capita general revenue collections in 1980 totaled $1062 in current dollars, only 80 per cent of the U.S. average—Maine ranked 40th among the 50 states in this regard. General revenues collected by state and local governments in Maine from business alone totaled about $146 million in 1980—up from $64 million in 1973. However, these payments dropped from about 26 per cent of taxable corporate income in 1973 to 23 per cent in 1980. It appears that Maine's business firms generally have a tax advantage over those in most other states.

Business regulation by state and local government is a contentious subject here as elsewhere. Environmental controls, utility rates, business practices, safety regulations, and other governmental controls inhibiting free enterprise must be evaluated separately in regard to their justification.

Maine, along with all other states, offers a wide variety of tax and financial incentives and services. Incentives now supplied to large new plants here include abatement of the corporate income tax and provision of free employee training services. In addition, it is estimated that various public agencies now spend about $4 million annually in aiding or promoting industrial development within the State.[11] It is difficult to evaluate the effectiveness of these incentives and expenditures because of their diffuse nature and wide availability elsewhere. How far should the State and municipalities go in offering financial inducements to wealthy out-of-state corporations? A related policy question is now much the State should spend on "smokestack chasing" in comparison with aid provided to the expansion of existing firms.

Sites for New Industry

Sites for new industry are a necessity for many firms, although some prefer to acquire existing factories. The Area Development Department of Central Maine Power Company lists (as of November, 1981) 185 buildings of greatly varying sizes with a total of 5,464,000 square feet which are now available for sale or lease throughout the state. In addition, they list 60 industrial parks and districts with a total of 9,060 acres, some of which are already developed. (See Figure 16.) However, only part of this land is usable immediately, with all roads and utilities in place. Also, some industrial parks are much more desirable than others. For example, out of a total of 112 vacant industrial sites of more than ten acres each, which total 4,600 acres throughout the Portland region, 42 sites totalling 2,000 acres are far superior to the others based on five criteria: adequate soil and drainage, availability of sewers, access to highways, railroads on site, and access to harbor.[18] These superior sites alone have over five times the land needed for projected industrial and related development in that area by the end of the century. Should more towns create additional industrial parks?

Living Conditions

Comparative living conditions are an important but somewhat nebulous factor in industrial location. In the words of one industrialist, as quoted in the *Journal of Commerce,* "Our final decision on a location is made by an unscientific walk around town to look at the parks to see if the grass is cut, at the schools to see what shape they're in, at the churches and the homes themselves to see if they're painted and well kept. These casual observations can reveal as much as all the inducements and welcomes extended." Other factors related to living conditions include the climate, natural environment, local

Figure 16

Industrial Parks in Maine

planning and land use controls, educational facilities, health and protection, and the availability of recreational and cultural opportunities. The Maine style of life obviously pleases some people and repels others. There also are great variations in conditions from one part of the state to another. It is probably true that some industrial plants have been built here mainly because the owner has a summer home in the state, likes to ski here, or has relatives nearby.

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D. ISSUES RELATED TO ECONOMIC DEVELOPMENT

Economic development means different concepts to different people. For example, six different criteria for evaluating prospective industries have been postulated to the Joint Economic Committee of the Congress[19]: (1) employment generation (small firms have grown fastest in the Northeast), (2) value added per employee (high level of productivity), (3) change in value added per employee (rapid growth in productivity), (4) wages per employee (high income), (5) change in wages per employee (rapid growth in income), and (6) new capital expenditures per employee (capital-intensive industries). It is obvious that some of these criteria are contradictory, while others may be compatible. One over-all definition of optimal economic development might be: the addition of new or expanding industries providing enhanced income and steady employment without significant degradation of the environment or social structure.

Development issues related to the state's resource-based industries include the following: Can the productivity of our forests and fisheries be raised and maintained on a sustained-yield basis? Can the long-term decline in agriculture be arrested? Can tourism be encouraged, without degrading the scenic areas which tourists come to enjoy? Will the economic benefits of a proposed copper mine surpass costs to nearby communities and their environment?

Consideration of other "export" industries leads one to question how research and training facilities can be expanded in Maine to encourage further growth in high-technology firms related to metals and machinery manufacturing. Can "import substitution" be encouraged (by producing machinery and supplies here, rather than buying them from out-of-state firms)?

Can Maine continue to depend on rapid growth in the numerous service industries which sell primarily to Maine citizens? Can we "take in still more of each other's washing?"

Issues related to the work force include the following: Can anything be done about Maine's continuing high level of unemployment and under-employment? Are real wage costs, including Workers' Compensation and Unemployment Compensation, high enough to discourage investment in Maine? Is there a possibility that the five Maine industries whose wage rates have risen recently above respective national averages will become less competitive with those of other states?

Regarding the need and availability of capital in Maine, does significant out-of-state and foreign ownership of industries, farms, and woodlands have a beneficial or deleterious effect on the state's economy? Would permission of out-of-state banks to take over local banks increase the supply of capital to local firms? How extensive are the capital needs of small business in Maine?

Does the state have adequate means of upgrading the management skills of small businesses, in order to encourage their growth and to reduce failures?

How can Maine's low incidence of exporting and research and development activities be reversed?

Would the state's access to materials and markets be improved by railroad consolidation? Should direct airline service between Maine and Canada be instituted?

What further measures are needed to conserve fuel, power, and water for use by industry and other sectors? How can the supply of waste (wood and garbage), hydropower, wind, solar, coal, and other underutilized fuels be increased for use by industry and others?

In respect to services to industry, are private and public research and educational capabilities sufficient to encourage the expansion of new products and processes? Are present financing methods adequate to maintain the state's public works, its highways, water and sewer systems, and to prevent further deterioration? How can state and local governments cope best with cutbacks in federal revenues? Are Maine's property and income taxes on industry competitive or disadvantageous in comparison with those of other states? Should the State continue to offer the present array of tax and other financial incentives to new industries?

In regard to sites for new industry, should communities be encouraged or discouraged in building additional industrial parks? How can industries be encouraged in rural areas where agriculture is no longer dominant? Should the State induce people to leave areas of high chronic unemployment and move to more favored locations? Should the State attempt to encourage or restrict industries to locate in certain areas for environmental or other reasons? Should certain highly polluting industries be prohibited from specific areas or all locations? What criteria can be developed to measure acceptable economic/environmental tradeoffs?

Although the above list certainly is not exhaustive, discussion of these issues should provide the substance of lengthy and fruitful dialogue among businessmen and public officials.

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CHAPTER III
SOCIAL DEVELOPMENT

Demography: A Changing Profile
Social Investments and Quality of Life
Concluding Observations
Endnotes

A. DEMOGRAPHY: A CHANGING PROFILE

Maine's demographic history reflects many of the changes experienced in the United States' population during the last forty years. Nevertheless, the state has been distinguished from the rest of the country by the relatively low personal income of its residents. And only recently has Maine experienced the cultural mixing which occurred earlier in many states as a result of post-war mobility. Migrations during the first two and a half decades after World War II were away from the state, in search of economic opportunity; this trend reversed itself in the seventies. Back-to-the-land environmentalists, young professionals, and retirees coming to Maine in search of the quality of life offered by the state outnumbered those leaving. Since 1970, the inmigrants, changes in the state's age profile and household composition, and economic events have been the major influences on the state's demography. These demographic trends are likely to continue in the 1980's.

The Inmigrants

Between 1940 and 1970, 156,000 more persons moved away from the state than migrated into it. Then, during the seventies, the net inmigration of Maine's population staged a startling reversal: 75,000 more persons took up residence in the state than left.[1] About half Maine's overall population growth from 1970 to 1980 can be attributed to net inmigration, and 72 per cent of those inmigrants were not natives.[2]

The impact of these inmigrants has been enhanced by the traditionally non-mobile character of the state's population. Although the number of non-natives residing in Maine stood at a modest 27.1 per cent of the 1980 population (compared to New Hampshire's 50.3 per cent, Massachusetts' 28.4 per cent, and the United States' average of 36.2 per cent), Maine ranked eighth in percentage of growth of non-native population dur ing the seventies.[3] The impact of the inmigrants varied around the state, with Cumberland County gaining 14,000 residents and York County gaining 21,000 between 1970 and 1980, while Aroostook County lost 11,000.[1]

However, it is the characteristics of these inmigrants, rather than their numbers, which has had the greatest influence on the social profile of the state. The demographic profile of these usually northeastern and urban inmigrants differs considerably from the population of long-time Maine residents. Newcomers tend to be relatively young and well-educated, with small families, and with training or experience in professional or managerial occupations. Nearly one-tenth have professional training or experience in the creative arts. Many of the skills possessed by the inmigrants helped to fill gaps in Maine's occupational structure. They brought with them different sets of values from those of native and long-time Maine residents, including differing attitudes towards government services, cultural activity, and economic development.

Newcomers have helped revive Maine publishing, creative arts, rural churches, small business and local politics. While the size and permanence of this migration during the 1980's will depend on such factors as the cost of transportation and national economic events, it is likely to continue to change the social, political, and economic profile of Maine's towns and cities.

What the Statistics Show

Maine's total population jumped from 847,000 in 1940 to 1,125,000 in 1980.[1] Like the nation as a whole, the composition of the average Maine household has changed substantially during the last four decades.

The State's population increased in spite of a dramatic drop in the state's natural increase (births minus deaths). This increase, rising from 88,000 persons in 1940 to 121,000 by 1960, dropped steadily to 56,000 persons from 1970 to 1980. Although the natural increase includes a gradual drop in Maine's death rates from 12.6 per thousand in 1943 to 9.2 per thousand in 1978, birth rates, like those nationwide, dropped sharply.[4] The crude birth rate fell from a high 26.7 per thousand population in 1947 during the post-war baby boom to a low of 12.6 per thousand in 1976, and now stands at 14.5 per thousand. The total number of births per woman is now slightly below the replacement rate of 2.1.

The baby boom of the 1950's produced a population bulge which has had an important effect on the state's educational system, job market, and hous-

ing supply. While the outmigration of the 1950's lessened the impact of the baby boom on the state, the inmigration of the last decade has restored an age profile more reflective of national trends. (See Table 1 below.)

Table 1
Age Structure of Population of Maine
(Per Cent Distribution)

Age Group	1940	1950	1960	1970	1980
All Ages:	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Under 5 years	8.3	10.9	11.2	8.5	7.0
5-24 years	34.9	31.8	33.5	37.3	34.3
25-44 years	26.8	26.9	24.2	22.1	26.7
45-64 years	20.5	20.1	19.9	20.6	19.6
65 years and over	9.5	10.2	11.0	11.5	12.5

Source: U.S. Census of Population

The numbers of elders also increased, by nearly a third, from 1940 to 1980. The increased number of adults living alone, the declining birth rate, and an increase in female heads of household are major contributors to the changing profile of Maine's households. Average household size has declined from 3.74 persons in 1940 to 2.75 in 1980.[1] While the total population increased 13 per cent, the total number of households rose 23 per cent. This phenomenon has resulted in a greatly increased demand for housing throughout the state, including both suburbs and central cities which have actually lost population.

The labor force participation rate in Maine rose from 54 per cent of all adults aged sixteen years and over in 1940 to 60 per cent in 1980. The male participation rate fell from 80 per cent in 1940 to 73 per cent in 1980, due to both later entry (longer educational period) and earlier retirement. At the same time, the female participation rate jumped from only 28 per cent to 48 per cent. The great rise in the female rate reflects a profound change in the lifestyles of women—particularly of young and middle-aged mothers, increasing numbers of whom are the sole breadwinners of families. Associated with these changes has been an increased demand for day-care facilities, part-time and job-shared employment, and equal pay for equal work.

During the last decade, the number of employed persons rose 21.6 per cent in Maine while the number of unemployed increased 69.5 per cent. Women's unemployment remained substantially higher than men's. Rates of 3.6 per cent (men) and 5 per cent (women) in 1970 rose to 6.8 per cent (men) and 7.7 per cent (women) in 1979. Those who worked full-time, 48 weeks or more, rose 36.6 per cent in number, while part-time workers fell 3.6 per cent. There

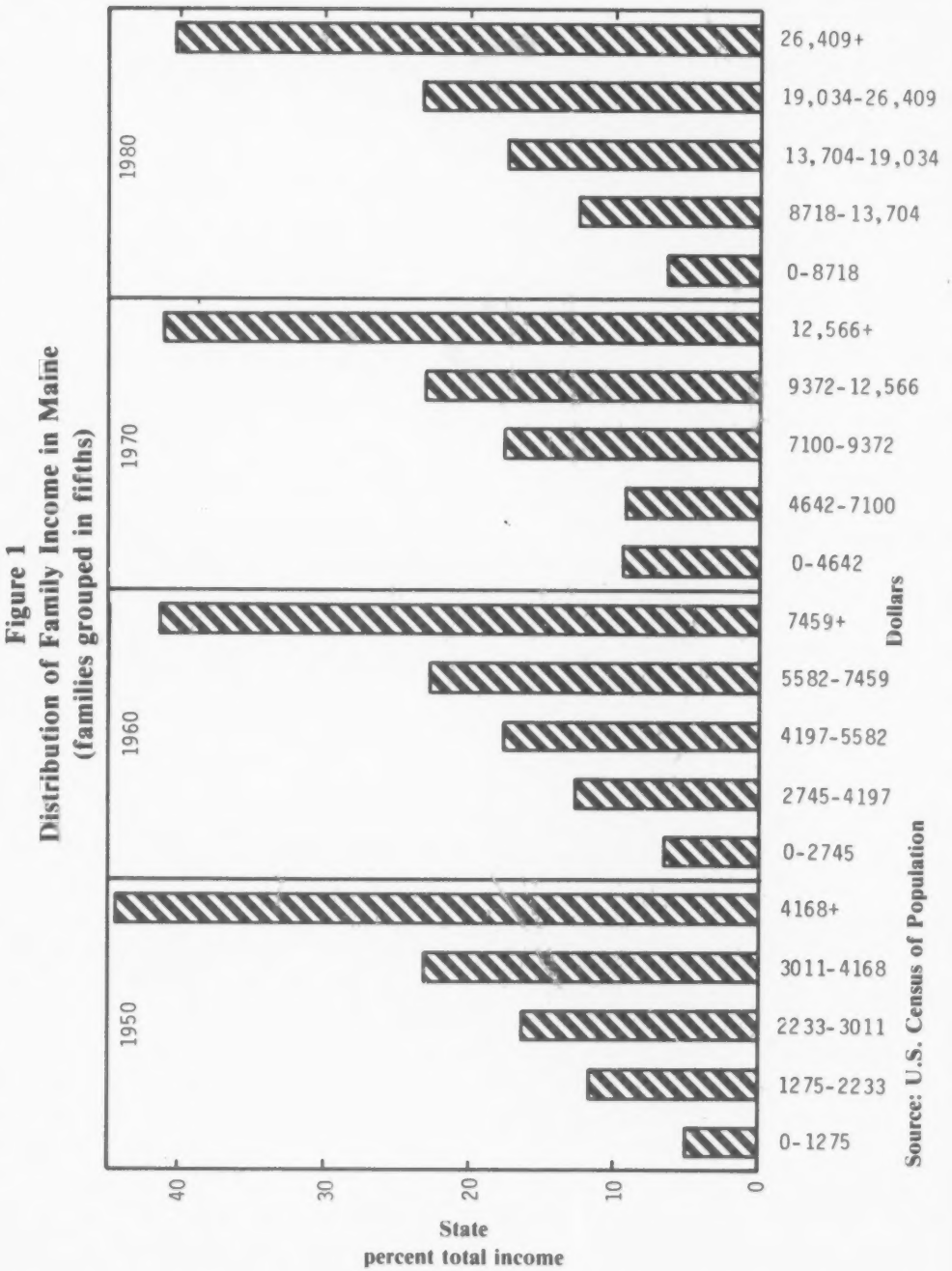

Figure 1
Distribution of Family Income in Maine
(families grouped in fifths)

are unfortunately no data on persons who are underemployed or those who are not employed in jobs for which they have been trained. Persons who cannot work because of disability rose 71.6 per cent from 1970 to 1980.

Between 1940 and 1980, Maine residents' total personal income rose 1,914 per cent in current dollars (or about 242 per cent in constant dollars).

Income from wages and salaries dropped slightly from 60 per cent of total income in 1940 to 58 per cent in 1980, while other labor income ("fringe benefits") rose from less than 1 per cent to 6 per cent, proprietors' income fell from 16 per cent to 7 per cent, property income dropped from 20 per cent to 16 per cent, and net transfer payments jumped from 4 per cent to 13 per cent. The latter include payments for retirement, death, disability, illness, unemployment, and income maintenance.[5] Maine residents' proportion of income received from transfer payments is significantly higher than the U.S. average of 9.5 per cent because this state has a greater share of low-income persons.

Maine's real per capita disposable income more than doubled (up 129 per cent) between 1940 and 1980, reaching $6,733 during the latter year.[6] However, this state's per capita income always has been significantly lower than the national average (ranging from 79 per cent to 89 per cent since 1940, and now at a level of 83 per cent).

While median family income in Maine rose 180 per cent in constant dollars from 1950 to 1980, when it reached $16,208, the distribution of that income between rich and poor became somewhat less unequal. (See Figure 1.) The poorest fifth of the state's families received only 5.0 per cent of cash income in 1950, but their share rose to 9.3 per cent in 1970 and then dropped to 6.4 per cent in 1980.[1] At the other extreme, the share of the highest fifth dropped slightly from 44.3 per cent in 1950 to 40.2 per cent in 1980. It is likely that the poorest fifth will receive a smaller share of total income during the 1980's because of recent cutbacks in federal income maintenance programs and benefits. It is also likely that the richest fifth will obtain a much greater share because of recent changes in the Federal tax structure. The second lowest fifth, containing many families especially vulnerable to social service and public employment, received 11.5 per cent of cash income in 1950 which rose to 12.5 per cent in 1980.

Lifestyles

Maine is a rural and conservative state: conservative in the sense of preserving respect for land, sea, and small town values. Although the social activism and prosperity of the Vietnam War years presented new options to the state, the American dream continues to be sought after by, but remains elusive for, most Maine residents.

During the last 40 years, the traditional interpreters of value in American society—family and church— have undergone profound changes in the state. Between 1970 and 1977, marriages in the state increased by 4.3 per cent while divorces increased by 47.0 per cent, with an increase of over 125.0 per cent in one of Maine's poorest counties.[7] Bureaucratic supports and replacements for the family—schools and human services— are straining to meet the needs posed by these changes.

Churches, which suffered a decline in membership and in importance within their communities during the 1940's and 1950's, have reversed that decline during the last decade, particularly in the rural areas. This new revival has sparked the growth of fundamental Protestant and Catholic religious communities. These churches tend to be more regional and democratic than the old denominations, and have, in many towns, significantly altered the political, social, and educational profile of their communities. Conventional churches, during the same time, have increased their involvements in social issues, notably the peace movement.

Many inmigrants who came to Maine between 1970 and 1980 sought a romantic version of the rural lifestyle that natives wanted to leave behind. Some natives, in turn, sought the very American dream the inmigrants had refuted. Debate and conflict between non-natives and natives occurred over economic development issues, environmental protection, and personal lifestyles. Nevertheless, by the end of the seventies, alternative lifestyles espoused by back-to-the-land inmigrants had attained widespread popular acceptance. Viability of these lifestyles was encouraged by the state's renewed self-respect, by the effectiveness of self-sufficiency as a form of insurance against inflation, and by a desire to preserve the social integrity of community. At the same time, champions of alternative living had gained a healthy respect for the traditional political and social institutions of Maine life.

Educational opportunity, the traditional route to the American dream, is shifting rapidly. While the number of adults who graduated from high school jumped from 54.7 per cent in 1970 to 68.5 per cent in 1980,[9] the percentage of Maine high school students going on to college dropped 4.8 per cent in the last decade,[10] and although some of that decline is due to elimination of the military draft, some reduction is likely to continue if federal assistance to students is reduced.

Limited economic opportunity has dominated the Maine lifestyle during the past forty years: personal income has remained approximately four-fifths the national average. In 1980 dollars, median household income actually declined during the last decade, from $17,457 in 1970 to $16,208 in 1980.[1] Today, less than 14 per cent of Maine families can afford a modest $35,000 house with a conventional mortgage.[8] The automobile in the driveway is not likely to be a new one, as the state's drivers register older automobiles every year.

At the same time, Maine consumers may prove more resistant to economic recession than the rest of the country because, since World War II, the state has lagged behind the national trend toward credit buying.[12] In 1950, Maine banks made personal loans at a rate 94 per cent of the national average but by 1980 national consumer borrowing had mushroomed and Maine banks were lending at a rate only 48 per cent of the national average.[11]

Economic opportunities in Maine, at the periphery of manufacturing markets, depend heavily on commerce, ingenious use of natural resources,

and technological sophistication. Following World War II, manufacturing as well as people left the state, and for the next several decades very little Yankee ingenuity was evident in Maine's business, agriculture, engineering, or manufacturing. Economic hardship and the energy crisis, however, have thrust Maine into a position of national leadership in energy planning and technology. If information-based technology is to be integral to economic development in the eighties, Maine producers, employers, educators, and households will have to embrace electronic information systems rapidly enough to remain competitive in the marketplace.

Issues for the eighties in all areas of social policy, and in the social history of the state itself, will be affected to a considerable degree by changes in individual values and national factors. Although the question of whether government should attempt to influence individual lifestyles must be debated regularly, government involvement appears inevitable in the areas of work opportunity, educational and cultural opportunity, and ensuring the basic necessities of life. The American dream is not only inaccessible to many Maine households, it has lost much of its allure: emergence of a new national value system may begin in the coming decade.

Cultural Diversity

Ethnic consciousness is an undisputed fact of American life. The predicted homogenization of America's diverse ethnic groups has never in fact materialized; on the contrary, recent history suggests a trend in the opposite direction. While explanations of this phenomenon are many and various, what does seem clear is that the recently renewed awareness can be understood as an echo of—and perhaps a response to—the struggle of America's racial minorities to achieve parity. More broadly, the new awareness can be viewed as a protest against the increasing rationalization of American values and the concomitant loss of personal identity.

In Maine, although a variety of ethnically-based organizations have either emerged or become more prominent in recent years, the most dramatic expressions of the renewed national consciousness have been in the Native American and Franco-American communities. Women have been less recognized as a cultural group, but more effective than ethnic minorities in obtaining programs aimed at their special economic needs.

For Maine's Native Americans, the Land Claims case is clearly the most significant event of recent years. The ultimate impact of the court decision cannot yet be assessed. It is clear, however, that the transition to a situation of greater autonomy for Native Americans will require major transformations in public policy. There is a danger that policymakers may declare the state's obligation to this group of its citizens at an end, and that something resembling the Policy of Termination at the national level may emerge.

In the Franco-American community there has been a substantial rekindling of interest in and identity with ethnic heritage. This is indicated by the formation of a variety of organizations, and in the production of cultural events and publications which have resulted in a greater general appreciation of the significance of Franco culture in Maine, and greater awareness of the very real patterns of discrimination faced by Franco-Americans over the years. Although the record is increasingly clear, little appears to have been done directly to correct that which has been described.

Women represent a cultural entity as distinct as ethnic groups, although public awareness of women in the last decade has generally been limited to their economic ghettoization. In spite of increased numbers of women attaining higher education, choosing to delay childbearing, and entering the workforce for reasons ranging from economic necessity to personal fulfillment, women have made negligible inroads into non-traditional (male) occupations. Federally-initiated affirmative action policies have sought to remedy this, but in the last decade the gap between men's and women's earnings has actually widened. And for the most part women continue to be full-time care providers as well as breadwinners: the division of labor between the sexes is by no means equal.

Women as a culturally different population are only sporadically acknowledged by public and private sector policy. Women's studies are scarce on Maine campuses; almost all Maine employers, including the government, have failed to provide for the child care responsibilities and career patterns of women.

Although reductions in social spending and a tightening economy threaten the gains made by women (who are a majority of the state's population—51 per cent in 1980), substantial public policy achievements have been posted in women's increased access to the political process, and in improved protection of women's rights. Maine ranks well nationally in the numbers of women elected to serve statewide and national office. The Maine Human Rights Act, passed by the legislature in 1971, effectively eliminated discrimination against women applying for credit in the state, and improved equal employment opportunities. Nevertheless, sexual harassment on the job and limited promotion opportunities remain high on the Maine Human Rights Commission's agenda for the eighties. Constant public vigilance is necessary to mediate cultural equality.

The fundamental question for Maine's—and the nation's—minorities and women is really a simple one. It is a matter of the extent of the national will to remedy conditions of long-standing discrimination and subordination, and the place in our national priorities that such remediation holds. Progress has been made on a variety of fronts in recent years. Much remains to be done, however, and it is by no means apparent that the national inclination to continue the struggle is as compelling as it was a decade or so ago. It is also apparent that federal support for remedial progress is likely to diminish, leaving Maine's pol-

icymakers with the problem of determining the place of civil and human rights in the state's plan of action.

B. SOCIAL INVESTMENTS AND QUALITY OF LIFE

Programs and services that directly relate to human requirements for sustenance, shelter, and opportunities for growth and development are now an indispensible part of our conception of a civilized state. The interrelationships of economic and social development are well-established, yet, in the United States, expenditures for social services tend to be viewed as remedial and stop-gap in nature.

There is another, and for Maine an increasingly more relevant, way to view social expenditures. As more than a remedy for the defects of a modern industrial world, they comprise positive contributions to and investments in a healthier, better balanced economy. Public sector expenditures help stabilize economic cycles, increase income, and improve the ability to consume for the bottom segments of the population.[13] They have also absorbed a substantial portion of the costs of private production. According to analyst P. Krishnavarty, "New production techniques require more education; increasing the number of married women with small children in the labor force requires expenditures for day care; worker displacements through automation mean retraining at public expense. These investments have allowed the acceleration of technological development."[14] And we are now finding that public sector investments help attract desirable business and industry. Quality education and health care, decent housing, cultural offerings and aesthetic appeal, add immeasurably to a state's attractiveness and weigh heavily in management decisions to relocate.[15]

What is Maine's record for public investments? Compared with other states Maine does reasonably well on the basis of expenditures per $1,000 of personal income: well above average in public welfare and highway expenditures and about average in education. (But Maine is a state with low personal incomes, and when compared to other states on the basis of per capita expenditures, Maine ranks low—44th nationally—on education.)[16] But despite the relatively limited capacity, in the present budgetary crisis Maine has led the way in efforts to protect the most vulnerable of its citizens against federal cut-backs.

As vital to economic well-being as public social investment is, the debate must include the question of how big an investment we can afford. Should it consume a larger portion of the existing pie—the state's Gross Domestic Product—or should additional expenditures be financed only by increasing the size of the pie through economic growth? But Maine is not an island unto itself either. Its economic and social well-being are determined largely by national policies. Thus, in debating "New Federalism", there is a need to more

carefully define the role of the Federal government in ensuring adequate levels of social investment.

Elementary and Secondary Education[17]

Three major developments have characterized elementary and secondary education in the post World War II period: the effects on the State Department of Educational and Cultural Services and local school districts of the federal role in education, the change in the school subsidy formula which occurred in the early 1970's, and a substantial increase in enrollments in the 1970's, followed by a decline through the early 1980's.

Prior to 1965, the Federal government had a relatively modest influence on education at the state and local levels. With the passage of the Elementary and Secondary Education Act of 1965, substantial levels of new funding were available primarily to support programs for the educationally disadvantaged, to support program improvement in general, and, in the 1970's, to provide increased resources for the handicapped and for vocational education (the Federal government had provided modest funds for vocational education for several decades). Federal civil rights and education requirements for the handicapped were even more extensive than the increased levels of funding would suggest. During the last fifteen years, between six per cent and eight per cent of revenues for Maine elementary and secondary education came from the Federal government.

Through most of the post-war period the State contributed roughly three of every ten dollars of local elementary and secondary education expenditures, while nearly seven dollars were raised at the local level and less than one dollar of ten derived from the Federal government. State government had made various attempts to deal with the two-fold problem of unequal educational opportunities and a heavy property tax burden that communities with a small property tax base had difficulty carrying. Legislation in 1965 and in 1971 established the principles of uniform tax effort and state aid at one-third of total per-pupil costs.

Several studies in the early 1970's, however, showed that the gap had not been closed between the educational opportunities available in rich and poor communities, but instead had actually widened. Local tax rates for school purposes were shown to range from a high of 93 mills to almost zero, and per-pupil expenditure also varied widely. In 1974, the Legislature passed L.D. 1994, which called for a uniform statewide property tax and effectively resulted in the State sharing educational costs with localities on a fifty-fifty basis. The fifty-fifty sharing standard has been continued through the end of the decade, though the uniform statewide property tax provision was repealed through referendum. If the increased State responsibility for funding education had not occurred, property taxes for schools would have been 39 per cent higher in 1979-80 than was actually the case. Conversely, State general purpose aid

for education would have been $72 million lower, a figure that is roughly 12.5 per cent of total general fund expenditures by the State and twice the level of the 1981 surplus.

Enrollments in Maine elementary and secondary schools increased 42 per cent between 1940 and 1980 (from 160,593 to 227,466 students). During that period the number of professional staff positions doubled. The real story, however, is that elementary and secondary enrollments are on the decline. For elementary schools, the peak year was 1972, with 177,981 enrolled. Elementary school population should decline until 1986 and a projected low of 142,863, then rise to current levels. Secondary school populations peaked at 78,990 in 1978, and should reach a low of 57,085 in 1990, with rises in the 1990's.

Enrollment declines have and will continue to present the typical small district in Maine with serious fiscal and programmatic challenges. Severe declines raise per-pupil expenditures faster than the cost of living, reduce State general purpose aid under the school subsidy formula, and increase local property taxes.

Accompanying the changing numbers of school-age populations are other demographic and community issues which have influenced school policy. Several may sharpen conflicts over allocation of resources in the coming decade:

- Suburban/city tensions: City districts losing population and school enrollments often are left with increasing proportions of pupils with special needs who are more difficult and more costly to educate. This is occurring as federal resources for such programs are being drastically reduced, and local fiscal resources are under severe pressure from both the education and municipal budgets.

- Pupils with special needs and the improvement of quality programming in general: The targeting of federal funds on pupils with special needs over the past fifteen years has usually freed such programs from competition on a district level, with concerns about the quality of educational programming in general. The cost of making difficult choices among competing, legitimate needs of pupils will be borne primarily at the local level in the 1980's, whereas, under the strong federal role that characterized the 1970's, such costs were effectively passed on to state and federal agencies.

- Increased demands and expectations from newresidents in Maine: The inmigrants are predominantly in the managerial and professional jobs, one-in-five has an occupational skill in teaching, and they have moved predominantly from metropolitan areas in the northeast. Their background, expectations, and demands on the schools may be quite different from the norms of most Maine residents. If inmigration continues

at the rate experienced during the 1970's with a similar profile of well-educated, urban professionals who have high expectations of government services, the stresses in some local education agencies may be severe.

- Differences in the type and pace of change between northern and southern Maine: Increased recognition that responsive training programs and good schools help to encourage business development and to attract professional and managerial employees, and higher expectations regarding the role of the schools in southern Maine may well exacerbate natural intrastate differences.

- Cross-district collaboration versus localism: The consolidation of very small school districts into School Administrative Districts that characterized the early part of the post-war period came to a halt during the 1970's. But the need for multidistrict collaboration, particularly in providing services in the areas of special and vocational education, may be increasing as a result of declining enrollments.

The agenda for the 1980's should include two questions raised by shifting fiscal responsiblity for education, and by the ongoing need to ensure that public education meets the state's training needs. What should be the role of the State and of the Department of Educational and Cultural Services (DECS) in assuring the achievement of Maine's educational goals? By the end of the 1970's, more than half of the employees of DECS were supported in part or entirely by Federal funds. The shift to block grants in education, while increasing local flexibility, places these positions at risk of elimination. Federal funding enabled DECS to increase its capacity to provide technical assistance and educational leadership to local school districts, and that capacity is in danger of disappearing. The State must determine whether DECS will be something more than a monitor of State financial and statutory requirements with respect to the operation of local schools. If the capacity that has been built over the last fifteen years is to be sustained, it will be necessary for the Legislature to provide the Department with additional resources.

How should education systems respond to the education and training needs of the private sector? Economic development in Maine depends on the quality of education available. Will the quality of elementary, secondary, and post-secondary education in Maine encourage inmigration and business relocation? Will there be adequate educational opportunity for all children in the state?

Post-Secondary Education

Post-secondary education affects Maine's economy in many ways. The $469 million in direct expenditures by public and private institutions in 1979

(up six-fold from $80 million in the mid-1960's) represents roughly six per cent of the Gross State Product. The total direct and indirect value of post-secondary education has effects on the economy other than direct and indirect economic impact. Graduate and professional schools provide the advanced specialists for managerial and developmental positions in private organizations and public agencies. Research, advisory, and training services provide many new ideas, new processes and new procedures which both manufacturing and service industries need in order to stay competitive in the economy. Finally, post-secondary institutions contribute to the effect of the educational and cultural climate on economic prosperity, thus helping to enhance the quality of life and the attractiveness of a region to potential businesses and industry and their professional and managerial employees who consider relocating into the state.

Two major developments have characterized the last decade and a half of the post-war period: changing enrollment patterns, and the creation of the University of Maine system.

Enrollment in Maine post-secondary institutions increased by one fifth between 1970 and 1981 (34,100 to 42,995), with almost three out of four students in public institutions. The proportion of public high school graduates going on to college has fluctuated from 49 per cent in 1967 to 53 per cent in 1970, 43 per cent in 1975, and less than 45 per cent in 1980. Sharp declines in high school graduates in Maine are expected to place considerable strain on existing post-secondary institutions. At the same time, Maine is following a pattern common in the rest of the United States: more adults are attending college as "non-traditional students." In 1978, there were 10,000 adults enrolled in the University of Maine, and it is projected nationally that adults will comprise at least 44 per cent of the total enrollment by 1988.

The 1966 Coles report to the Maine Advisory Committee for Higher Education noted that, ". . . the State of Maine has the beginnings of a system of public higher education—but only the beginnings."[18] The University of Maine system was created in 1968 by combining, under a systemwide chancellor, the four-year colleges at Farmington, Fort Kent, Machias and Presque Isle, the two-year college at Augusta, the University of Maine at Orono and the new university center at Southern Maine, which resulted from the merger of the University of Maine in Portland, Gorham State College and the University of Maine School of Law. These institutions currently enroll almost 24,000 full-and part-time students.

Both the realized direct and indirect, and the potential, contributions of post-secondary education institutions to Maine's economy assure that a number of policy issues will arise during the 1980's: competition among post-secondary institutions for students, the possibility that one or more liberal arts colleges may be forced to close, and the future direction of the University of Maine system.

Dramatic declines in high school graduates are likely to increase competition among Maine's post-secondary institutions, particularly for adult nontraditional students. As a result, Maine should consider either a central planning or a free market, entrepreneurship, approach to establishing the division of labor among institutions for new markets and activities. Under a central planning model, the state could be interjecting itself into the program approval processes of both public and private institutions to a far greater extent than is current practice. Under an entrepreneurship model, the State, alternately, would be substantially more concerned with issues of program quality than may currently be the case. Absence of State direction in either the central planning or the entrepreneurship model will not avoid coming problems: division of labor among public and private institutions, consumer protection for post-secondary students, program quality issues, and efforts by out-of-state institutions to offer programs within Maine. Proposals to coordinate programs and contract services among private and public institutions, and to increase financial support to Maine students attending private institutions are likely to continue.

A second planning issue is the possible closing of private post-secondary institutions. A recent report to the Post-Secondary Education Commission of Maine indicated that two of the state's residential liberal arts colleges might be forced to close within the next twenty years as a result of declining enrollments.[19] The closing of a small institution has a pronounced economic impact on its local community, not unlike the impact of the closing of a manufacturing enterprise. Major questions for Maine are, what policy should the State adopt toward its private institutions, and what should it do when bankruptcies loom? Will Maine adopt an explicit policy in advance to govern the State's response to potential closings, or will the response be ad hoc and governed totally by the pressures of the moment? While preplanning for "worst case" situations can have both political and financial implications, ad hoc responses are likely to be more costly as well as ill-conceived.

Finally, the University of Maine continues to be a developing system of public post-secondary education. Many of the problems that existed in the mid-1960's at the time of the Coles report persist today: the University suffers from faculty salaries among the lowest in the U.S., from among the highest tuition levels in the nation, and from limited expectations regarding additional support from State sources. These conditions contribute to competition between the new university center in Portland and the campus at Orono. In a zero-sum budget game major issues will revolve around the extent to which resources should be devoted to maintaining research and doctoral program excellence or redirected toward graduate and professional education in the urban center where population is growing and the potential for economic development is greater. Moreover, a major policy question for Maine in the 1980's concerns the role that the University of Maine will play in serving the

economic development needs of the state as well as in meeting the state's needs in general.

In addition to issues of resource allocation, the university system will face many tests during the coming decade ranging from how it will handle the collective bargaining process, to how it will handle central planning in the face of local predispositions for campus autonomy.

Health and Human Services Policy

Major accomplishments of public policy in health and human services during the last forty years have been concentrated in the efforts of Federal programs growing out of New Deal legislation. Increased coverage for health and social services to low-income Americans and to special needs populations has occurred as a result of massive increases in Federal spending, particularly since the 1960's. Many special needs constituencies, politically weak on the State or local level, have been able to organize effectively on the national level. During the last decade many policy areas shifted emphasis from crisis services to prevention. Social services once limited to welfare recipients became available to broader segments of the population.

Shortfalls in public programs have been chiefly due to the massive costs of rectifying social and economic stress in our society and to the failure of service programs to eliminate structural causes of social dysfunction. According to many indicators, the gap between advantaged and disadvantaged has widened rather than closed during the last four decades. Maine's per capita income remains at 80 per cent of the national average, down somewhat from the state's relative position during World War II. Food stamp recipients in Maine, while better fed and housed than they were twenty years ago, still pay more than two thirds of their incomes for shelter.[7] During the last decade, the numbers unemployed increased 69.5 per cent, while the numbers employed in Maine increased only 21.6 per cent.[10]

Because public social welfare programs were driven by the needs of low-income Americans, the stigma of welfare is attached to social planning in the United States. This has tended to limit public commitment to many programs not primarily concerned with economic need such as handicapped, developmental disability, criminal justice, and mental health programs.

And finally, though observers have warned for at least two decades that American technology has out paced our society's ability to cope socially with it, technology is almost never included in discussions of social policy. Because recent information and manufacturing technology have had little impact on Maine to date, the State is presented with the opportunity to implement them by paying more careful attention to job security, community health, and economic impact than other parts of the country have paid.

Future public policy debate will focus on five questions: what is the effect of current disengagement of the Federal government from social program-

ming? To what extent are state, local, and Federal governments responsible for the well-being of their citizens? How will the politically weak be protected? What can be done to eliminate the causes of social and economic stress? What levels of investments in health and human services are necessary in order to sustain economic health and social well being in a rapidly changing and highly competitive economic environment?

Significant linkages between society's and individuals' mental health and the economy have been established by Johns Hopkins' Harvey Brenner: when the U.S. unemployment rate rises by 1 per cent, 4 per cent more people wind up in state prisons, 5.7 per cent more people are murdered, 4.3 per cent more men and 2.3 per cent more women are admitted to state mental hospitals for the first time, 4.1 per cent more people commit suicide, family breakdown rates are higher, and there is increased violence towards women and children.[20]

Key indicators for future assessment and planning will be unemployment rates, wage levels, purchasing power, economic status, certain categories of mortality and morbidity and poverty rates.

Health

Public policy during the last forty years produced a major expansion of the health care system and of government's role in financing health care. Greater access to the system for the poor, aged, and other medically underserved groups was achieved through Medicare and Medicaid. Private health insurance expanded with growth of Blue Cross/Blue Shield and other nonprofit and commercial insurance plans. But by 1978, the Federal share of health expenditures in Maine represented nearly one-third of the total, while the State share had declined to just under 10 per cent.[21]

The increasing cost of health care will force decisions during the coming decade by public policymakers. During the past two decades, the health care share of the gross national product increased from 5.3 to 9.0 per cent.[22] Total health care expenditures nationally ($212.1 billion in 1979) and in Maine ($788 million in 1978) have been increasing at a rate exceeding 10 per cent a year for the past decade.[21] In 1981, total health care costs increased by 12.4 per cent.[22]

Coupled with the cost problem, and some would say contributing to it, has been the development by the health care system of technologically sophisticated and costly interventions, and the expansion of institution-based care, to the exclusion of policies emphasizing preventive services and personal and family responsibilities in maintaining health. For example, nursing home expenditures for the elderly have increased 15 to 20 per cent per year since 1965, when Medicare and Medicaid were enacted. The unhappy fact is that individuals still go bankrupt from the high costs of illness or injury.

The problem of equity in the distribution of the health-care dollar is, and will continue to be, a major concern of health policymakers. As resources

become increasingly scarce, the large investment that has been made in costly and highly sophisticated technological care will compete with efforts to expand access to health care. Sooner or later the question of limits must be faced: what portion of our Gross National or State Product can we afford to pay for health care? Can Maine serve as a laboratory for the administration of fiscal controls and State solutions to controlling health care costs?

Already states, including Maine, are developing and implementing a variety of reimbursement approaches designed to reduce the states' liability for hospital and nursing home costs and to encourage home-based care for the elderly and the disabled. These trends will continue even if so-called "competitive" approaches are developed and pushed by the Federal government: most states are highly skeptical of the effectiveness of competitive approaches in controlling health care costs.

What will be the future role of the State in financing health care for low-income people? If states continue to administer Medicaid and especially if federal support for that program is reduced, Maine will be forced to reassess its priorities in spending limited state and Federal funds. How should cuts in available funds be distributed? On the one hand, eligibility and benefits can be restricted. Coverage for the working poor and other groups under the "Medically Needy" program may have to be eliminated. Alternatively, Maine and other states may explore ways of distributing these cuts equally across provider and consumer groups.

The future of the Federal health planning program is also uncertain. The gradual reduction in Federal planning requirements over the last two years poses for Maine the question of whether, and how, to continue the planning and regulatory functions and programs begun under P.L. 93-641. If Federal planning requirements continue to diminish, states are likely to move toward integrating health planning functions and staff into their ongoing Medicaid and public health programs. The need to maintain planning is likely to be greater than ever in the eighties as costs and number of users increase.

The other major issue for the coming decade is presented by the recognition of a whole set of health problems that public policy and the health care system are ill equipped to handle, including environmental contamination, social and domestic violence, and family dysfunction. Clearly the health team of the future must include a broader range of professionals and other disciplines.

Mental Health

The development of a statewide system of Community Mental Health Centers and the concurrent reduced utilization of the two State mental hospitals have had a significant impact on the acceptance, accessibility, and delivery of mental health services in the last forty years. Prior to the 1960's, mental health services were accessible to the poor only through the two State mental

hospitals. Both the development of CMHC's and revisions in Medicare and Medicaid policies to pay for mental health services have resulted in greater accessibility for the general public.

Another major trend has been the increased sophistication of mental health delivery systems, with greater utilization of psychologists, psychiatric nurses, psychiatric social workers, and other mental health professionals.

The key policy issues for the coming decade will be support for community mental health centers and care for the chronically ill who are living outside institutions in their own homes and communities. Tight budgets already are putting such care in competition with preventive services. Should preventive services be eliminated, the likely result will be increased long-term health care costs. This dilemma may cause a rethinking of community-wide mental health strategies and the role of the Community Mental Health Centers.

Aging

During the last forty years there has been a dramatic increase in the size of Maine's elderly population, from 70,325 persons over 65 in 1940 to 141,000 in 1980.[1] The elderly, comprising 12.5 per cent of the state population in 1980, are above the national average of 11.2 per cent of the population. A growing proportion of elders will live into their eighties and nineties in the decade ahead, and more Mainers will be female, widowed, alone and frail.

The last two decades have also witnessed a recognition of old age by public policy, and a rise in elders' political power. A key component of public policy toward the aging has been the growth since 1940 of the medical model as the means of meeting the needs of the elderly, such as through Medicare. While this has contributed significantly to health care and longevity, it has often led to premature and unnecessary institutionalization. The Older Americans Act (1964) helped create visible institutions in Maine representing the elderly through the State and Area Agencies on Aging and their activities. Programs for the elderly are likely to escape current drastic reductions in Federal funding and to grow in both size and scope.

Public policy during the coming decade will have to address more directly the changed status of the elderly in our society:

- The need to address the segregation of the aged,their isolation and loneliness;
- The need to insure that health and mental needs can be met without forced or encouraged institutionalization;
- The need to provide income security for elders;
- The lack of employment opportunities;

- The need for housing options, including shared homes and congregate housing; and
- The need for programs to prevent abuse and neglect of the elderly.

Families, Youth, and Children

The most significant change in the last forty years impacting on families and children has been the increased role of service providers as adjuncts to the home in rearing, nurturing and nourishing children. This development has occurred because of the substantial increase in the numbers of working parents, in both single- and two-parent households, and because of increased stress on the family brought on by industrialization and poverty. Expanding responsibility by the State in assuring some level of adequacy for families has resulted in several progressive policy and program changes for Maine children and youth:

- Special education programming in public schools,thereby enabling children to remain at home and in contact with "normal children";
- Closing of the State's only psychiatric hospital for children and utilization of private, community-based treatment centers;
- Abolition of juvenile status offenses;
- Rapid progress in the reporting and treating of child abuse and neglect;
- Provision of homemaker services for families in crisis;
- Nutritional supplements for low income children and mothers; and
- Child health programs.

However, problems of family dysfunction, single parents, coping with illnesses and disabilities, children and women at risk of abuse, and under- and unemployed adults can be expected to grow in Maine as long as economic and social stresses are increasing in our society. Shifts in Federal responsibility to the states, coupled with a reduction in Federal assistance, will present difficult policy choices for State planners and legislators. How can the State protect politically weak constituencies? To what extent should the State raise taxes and redistribute income among its citizens? What kinds of formerly Federally-initiated job development, child development, nutrition and other preventive programs should the State pick up? Can State services be organized and delivered to support and strengthen families as a whole? How are the public and private sector roles defined?

Mental Retardation/Developmental Disabilities

Since the 1960's, public policy in mental retardation/ developmental disabilities has shifted from extensive utilization of custodial institutional care to an emphasis on maintaining individuals within the mainstream of society. In response to the lack of State and local initiatives, major pieces of Federal legislation were passed which focused upon the human rights of mentally retarded and developmentally disabled persons, and which provided the funds necessary to implement responsive programs. Although an increase in community-based programs occurred, many were administratively inefficient, duplicative, and uncoordinated.

In recent years, the focus has shifted from client rights to tax-dollar costs. In response to perceived uncontrolled spending at the state and local levels, repeated Federal initiatives have attempted to make programs accountable through funding reductions. However subsequent funding cuts in community-based programs fostered little in the way of administrative improvement.

There have been cyclic shifts in the locus of responsibility from State to Federal government and vice versa. Other pendulum swings have moved between an emphasis upon the individual with limited consideration of cost, and an emphasis on cost with limited consideration of the individual. Key issues for the immediate future will be, first, clear articulation of goals, second, an aggressive Federal-State partnership, and, third, cost-effective safeguarding of human rights in meeting the needs of developmentally disabled and mentally retarded persons. These must be accomplished before effective evaluation of special education, mainstreaming, de-institutionalization and the various Federal programs can take place.

Handicapped

Concern for physically disabled veterans prompted the earliest public initiatives affecting the handicapped. Since the end of World War II, Maine has moved to recognize the value of including disabled individuals, who comprise approximately 10 per cent of the State's population, in the social and economic mainstream. Architectural accessibility and vocational rehabilitation were the key components of "handicapped" policy. The attitudinal barriers were addressed much later, as part of comprehensive employment discrimination laws enacted to protect other minority groups.

The major current issue, which is likely to sharpen in the face of a changing Federal government role, is the entry of severely and chronically disabled Americans into the labor market. Rapidly-growing organization of the handicapped into a political constituency will pressure public policy to maintain and further the advances of the last decade. Initial high-cost investments in rehabilitation and housing, which face opposition in a time of reductions in government spending, must be debated against the deferred, but ultimately

much higher, social and economic costs of maintaining disabled individuals in economically dependent situations.

Income Maintenance

The groundwork for federal involvement in income maintenance was laid by New Deal legislation of the 1930's. Changes in Federal-State government matching formulas after World War II tended to steadily increase the Federal share in income maintenance programs. During the last thirty years, also, much of the disparity between states with respect to program eligibility and procedures was eliminated, although discrepancies with respect to level of assistance remain.

During the War on Poverty of the 1960's, public assistance programs for the needy became the stage for national debates on the relevance of income maintenance to the elimination of poverty. By the early 1970's, Federal and State programs had expanded beyond last-resort intervention. They came to be seen by many as the primary defense against poverty when the nation's economy and a variety of public and private training programs failed to produce jobs and adequate wages for all who wanted to work. In this economic and political climate, the Nixon Administration's proposal for a federally administered guaranteed-income plan was nearly adopted in the early 1970's. But misconceptions that there are jobs available for welfare recipients and that most AFDC recipients stay on the public rolls for years remain politically active in debates about income maintenance policy. Available data clearly refute these myths; instead, the facts show that the poor are "not a subclass in need of rehabilitation . . . but given appropriate access and means do pull themselves out of poverty."[23] And it is safe to say the public understands even less the high human and financial costs of not providing such means and access.

Proposals to de-federalize human services will have a profound impact on income maintenance policy. Income maintenance programs in Maine today contribute $150 million per year to the state's economy. They reach roughly 20 per cent of Maine's population at any given moment. The Federal share of the cost is roughly $110 million, or 73 per cent. There is no way that Maine can maintain these programs, now or in the future, without substantial Federal financial participation. Providing adequate assistance for the needy is a national problem and calls for national solutions. The fundamental policy issues facing the country are, how to guarantee jobs for those who need work, and how to guarantee decent levels of income for those not in the labor force or for whom there are no jobs available, while keeping in mind that the bulk of needy individuals in the state and country are children.

Federal policies on minimum wage, employment opportunity, and other health and social services directly affect the size and makeup of income maintenance programs. Public policy will have to focus on protection of politically weak constituencies, on the primary role of the Federal as well as State gov-

ernment in assuring family economic adequacy, and on State administered preventive programs which minimize the need for financial assistance.

Employment and Training Development

Employment and training programs since 1940, nationally and in Maine, have been primarily concerned with the creation and maintenance of a skilled labor pool for economic and social development. Generally, this has meant a public investment in "human capital"—an investment in the training of a supply of labor to meet economic demands and help create and shape growth.

During World War II and the Cold War, the military establishment invested in large numbers of young men through direct training, through opportunities for continuing education while in military service, and through veterans' benefits which financed education and training after returning to civilian life.

The "discovery" of poverty in the early 1960's fueled the civil rights movement and led to the second major component of employment and training policy since 1940: public involvement in creating opportunity for those at the bottom of the economy through the Economic Opportunity and Civil Rights Acts of 1964 and the Manpower Development and Training Act. Concern with the training and experience of the disadvantaged and with elimination of barriers to their education and unemployment was continued in the 1970's with the more decentralized programs of the Comprehensive Employment and Training Act (CETA).

Future employment and training development policy in Maine must face the shortfalls in national policy. Federal initiatives have not tended to improve the relative position of disadvantaged groups such as Native Americans, women, and Franco-Americans, and have not improved the lot of the secondary labor market which comprises a relatively high proportion of the state's labor force.

Accessible public education has tended to increase the education and training of the labor force overall. The trend to decreased Federal support for post-secondary training poses for the State the need to increase its investment in education. In the face of declining Federal employment and a stagnant economy, antidiscrimination initiatives must also be assumed by the State in order to assure improved opportunity for disadvantaged groups.

Criminal Justice

Two significant trends can be discerned in Maine's criminal justice system since 1940. First, the state has been profoundly affected by the "nationalization" of criminal justice that has occurred during that period. This has resulted in part from United States Supreme Court decisions imposing new

constitutional rules on policy, prosecutors, judges, and corrections officials, and in part from a desire by Maine citizens to bring their laws and institutions into line with contemporary theories and emerging national standards.[24] For example, in the 1970's the Maine legislature rewrote both the state's criminal code and its juvenile code, eliminating penalites for a variety of so-called victimless crimes and status offenses. In 1978, the legislature, responding to indications that parole decisions are often unfairly subjective, became the first in the nation to establish determinate sentencing for all state prisoners.

The second trend has been a slow but steady movement toward recognition that a true "system" consists of interdependent rather than independent parts, which in turn has led to increasing centralization of the state's criminal justice system. In 1961 the legislature abolished municipal courts, which for more than a century had handled all minor criminal and civil cases, replacing them with a statewide district court system headed by a chief judge appointed by the Chief Justice of the Supreme Judicial Court. Then in the 1970's the previously autonomous county-based superior courts were brought under the administrative control of the Chief Justice, assisted by a professional court administrator. This reorganization was intended to permit more efficient distribution of judicial resources and to help alleviate some of the problems of backlog and delay that plagued the court system.

Maine has not followed a nationwide trend toward work-release, halfway houses, or other innovations intended to reduce warehousing of prisoners during the last decade. Instead, the state chose determinate sentencing as a policy to improve the effectiveness of rehabilitation.

Although the Federal government today is demonstrably 'ess interested than it was a decade ago in helping states improve their criminal justice systems, the demands on those systems will continue to increase in the decade ahead. It was once thought that crime rates would begin to slow during the 1980's because of a reduction in the number of young people aged fifteen to twenty-four years, who historically commit the most crimes. However, most experts now believe that crime has become such an indelible part of the social fabric, with such complex variety of causes, that it is unlikely ever to decrease. While we would be wise to remain skeptical about the capacity of courts, however well-administered and funded they may be, to prevent or deter crime, we can expect our legal and judicial institutions to deal swiftly and fairly with persons accused of crimes. Two of the most promising developments in this regard are decriminalization—revising our ideas of what constitutes an offense against society—and diversion—identifying some offenses that can be better dealt with outside of the formal court setting. Decriminalization and diversion both have firm roots in Maine soil. Both will need to be looked at carefully in the decade ahead as possible means of relieving the judicial system of tasks it does not do well, or as well as other institutions, and of leaving it better able to perform the work that remains.

Arts and Humanities

The arts and humanities have grown dramatically in economic importance, in audience support, and in numbers of active professionals since World War II. The tourist-oriented summer season of forty years ago has been gradually surpassed by year-round cultural activity, and, because of growing local support, the arts and humanities in Maine are likely to remain healthy in spite of budget cuts on the federal level.

State policymaking in the arts and humanities began in 1933 with the establishment of the State Arts commission, which advised State government on arts purchasing. In 1965, a gubernatorial advisory committee recommended the founding of the Maine State Commission on the Arts and Humanities (MSCAH) to promote the development of the arts and humanities in Maine.

With passage of the National Endowment for the Arts in 1966, MSCAH assumed responsibility for distributing Federal funds, which totaled $526,000[25] in 1981, to touring artists, to cultural organizations, and to artists-in-schools programs. The Maine Humanities Council (established in 1975 as the Maine Council for the Humanities and Public Policy) was a pilot project for the National Endowment for the Humanities. Its successful model was adopted nationally, and in 1980 the MHC distributed $240,000[26] in grants to non-profit organizations, to local government, and to educational institutions. Reductions in the level of Federal support will alter both state agencies' profile.

During the last decade, Maine artists and craftspeople became more sophisticated and less imitative as the arts responded to popular support, with crafts and folk arts gaining regional importance. Earnings for professionals in the arts and humanities have improved, especially for those with regional audience and for musicians playing in clubs.

Although increasing, the proportion of revenues derived by the state's nonprofit cultural organizations from ticket revenues as opposed to public grants and corporate gifts was only 31 per cent in 1978, compared to a New England-wide average of 46 per cent.[27] However, Maine ranks in the top ten states nationally with respect to local financial support of libraries, and has the third-highest book circulation rate per capita in the country.[28] There has been a heightened demand for and support of arts and humanities from the state's new inmigrants, and this trend is likely to continue through the next decade. Nearly 10 per cent of those inmigrants had marketable skills in the arts.[29]

Enthusiasm for the arts in public schools has lagged behind that of the community at large. Maine has a much lower ratio of arts teachers to students than neighboring New Hampshire or Massachusetts,[30] and the number of arts curriculum coordinators in the Department of Education and Cultural Services has been reduced from two to one in the last decade. In spite of a recent national report on the importance of the arts in school, less than 10 per

cent of Maine high school students participate in arts programs, and the majority of Maine's next generation of citizens has ready access only to popular music, TV and film.[31]

The arts and humanities are growing in importance to the Maine economy: 601 nonprofit cultural organizations had a total impact of $22.7 million within the State in 1978 (this does not include the significant role of professional artists or music clubs).[27] Arts and humanities activities represent "clean growth," which has been and will continue to be an important ingredient in the quality of life which induces businesses and inmigrants to choose to locate in Maine.

During the eighties, artists and cultural organizations will need improved management skills. Earnings are still generally substandard, and some organizations will close their doors in the face of rising costs. Competition for the same contributor dollars will stiffen. At the same time, declining Federal support for arts in education will be met by increased demands for school art programs from inmigrant parents. And the quality of life provided the state by its cultural organizations and artisits will grow in importance for economic development: it is one business factor which in Maine doesn't suffer due to energy and transportation costs.

Housing and Community Development

Housing for all socio-economic groups has increased in quantity and quality since 1940 due both to low interest rates relative to household incomes and to Federal involvement in housing. The stimulus provided by these factors diminished abruptly at the end of the 1970's, leaving consumers, builders, towns, and State government with few tools to meet pressing housing needs.

A statistical survey of housing in Maine since the 1940's reveals that the total number of housing units has almost doubled, from about 260,000 in 1940 to about 501,000 in 1980.[32] During the last decade, over 100,000 new units were produced, with over 14,000 financed by the Farmers' Home Administration. During that time the median value of all homes increased 196 per cent.[33]

Mobile houses accounted for just over 800 of the total housing units in 1950 and over 6,000 by 1960. Between 1960 and 1980, 25,000 mobile homes were added to the State's housing stock, comprising almost half of new single family homes in the last six years. During the last few years, apartment construction also contributed significantly to new starts. While mobile homes and apartments represented by 12.0 per cent and 0.8 per cent respectively of new units built in 1970, comparable data for 1980 are 25 per cent and 24 per cent.

Federal involvement in housing has vastly improved housing quality for handicapped, elderly, and low-income people. Notable progress has been made in the areas of weatherization and rehabilitation, but considerable need remains.

Raw statistics tell nothing about the quality and location of this new housing. Many downtown areas have benefitted from housing for the elderly and associated urban revitalization activities, where large old commercial buildings have been converted into residential projects. Condominium development and rehabilitation of old apartments and dwellings have also improved the physical health of deteriorating urban areas in the southern part of the State, but have changed the social fabric of the community.

Suburbanization began in the 1950's around larger Maine cities, caused by expanding home ownership and the availability of the automobile. Associated effects which began to concern local governments in the late 1970's were changing rural land use patterns, the removal of wages for spending from the communities in which they were earned, taxation, and commercial growth. The rural suburb or exurb emerged as a residential pattern during the 1970's: seventy per cent of the State's population growth between 1970 and 1976 occurred in towns of two thousand or fewer people.

Mobile homes have been the cause of continuing controversy in Maine communities. Today, eighty-four Maine towns limit manufactured housing either by restrictions or by confining it to mobile home parks. Many parks lack adequate open space and community facilities and provide a poor living environment. The design and construction of manufactured homes themselves has improved because of state and Federal minimum building standards.

Generally, single family housing architecture during the last forty years has been undistinguished, with the exception of design breakthroughs in the "alternative housing" field. An insignificant number of homes are architect-designed and few developers have produced innovative subdivision layouts. Most single-family housing is built by low-volume contractors, many of whom seek the path of least resistance and build where zoning and building regulations are lax. Energy-efficient solar housing, however, represents an important and growing segment of both single unit and development construction.

If Maine's population increases a moderate 6 per cent between 1980 and 1990 there will be a need for 10,000 new housing units per year each year of the decade. An estimated 50,000 units need major repairs and an additional 11,000 units are classified as substandard, not suitable for rehabilitation. These deteriorated units represent 13.5 per cent of the housing in Maine.[33]

The demand for a broad range of housing types—apartments, townhouses, and condominiums—will persist as family sizes become smaller and fewer, and fewer Mainers are able to afford a single family house. These types of units will represent an increasingly larger percentage of the housing stock, especially as mortgage rates and building costs remain high. The popularity of the exurbs—a place in the country—will continue, but may be slowed by accelerating transportation costs.

In 1982, less than 14 per cent of Maine households could afford a conventional mortgage on a modest $35,000 house.[33] Housing costs have consis-

tently outpaced personal income growth, and home heating costs are increasingly burdensome.

It is clear that financing mechanisms will change, perhaps profoundly. Fiscal conservatism in Washington and cutbacks in Housing and Urban Development, Farmers Home and other "traditional" Federal housing programs, will put more pressure on the State or industry to respond with new programs and subsidies. Even if inflation is reduced, mortgage rates will remain high, and lending institutions will have to develop innovative loan programs.

The home building industry in Maine must also readjust to the difficult challenges of the next decade; business will not continue as usual. Builders, energy experts, bankers, lumber companies and manufactured housing industry representatives must explore new avenues. Smaller houses, modular, and add-on houses should be built as a means to cut costs. Energy conservation in new and existing residences is of major State importance, and the Maine State Housing Authority now requires that all new construction meet the State's Energy Efficiency Standards.

Special new programs to assist in the weatherization and rehabilitation of existing buildings are also needed. At present, over 50,000 units need upgrading, and vacancy rates are lower than ever before. Many older homes in good repair may simply become too expensive to heat unless reasonable loans are available for weatherization. At the same time, many vacant second-and third-storey spaces above commercial real estate in downtown areas offer opportunities for residential revitalization. Consideration should be given to property tax waivers for home energy improvements and to creating incentives for home improvements, based on BTU's of conventional fuel saved.

In terms of land and site planning, more developer, consumer, and town official education is needed. The importance of farmland preservation must be emphasized and the negative consequences of leap-frog development and extended sewer lines must be stressed. Developers need to be shown the benefits of alternative housing types (such as town house and patio house designs) and concepts of cluster housing, in-hill housing and planned developments need to be taught.

The discussion of housing, land use, and environmental design must also include the quality of developments along some of the state's major highways. Route 1 and its creep of helter-skelter development demonstrate the need for a heightened awareness of the adverse impact of visual blight in areas of prime recreational and aesthetic value.

C. CONCLUDING OBSERVATIONS

In projecting future social developments, it is useful to review some of the substantial progress that has occurred over the past three decades: the state's educational system has changed markedly, institutional populations have decreased by 75 per cent; many more poor can get some help; nutrition

has improved, infant mortality and morbidity have dropped; a variety of social services is more widely available; residential housing increased twice as fast as population growth in the 70's; art and cultural events have become worthy of public support; consumers and minorities have new voices, strong advocates and better protection; and pioneering antipollution legislation has improved the quality of life in Maine.

Barring major upheavals and depending, of course, on what happens in the political arena, one would have projected the same kind of steady progress in the next two decades. Pressures for change are evident. They come from demographic changes characterized in the short term by the wave of young adults reaching their mid-thirties, and in the longer run by the increasing proportion of older people in the population. Different values and expectations of inmigrants; continuing effects of the women's movement, especially from women in the workforce; changing Federal, state and local government roles and responsibilities; constraining economic conditions, limits to growth, tight budgets and energy conservation, and the revolution in information technology are all bound to affect the way we live.

How such forces will directly impact on public policy is always speculative but some generalizations seem warranted. First, the Reagan Administration's "New Federalism," in some respects an extension of trends begun under previous administrations, will profoundly affect State services. One difference between this and earlier programs is that previous administrations articulated national goals: this administration has not. Another major difference is the reduction or withdrawal of Federal funding under New Federalism. Thus, financing of local and State programs has become the most immediate and critical problem. Clearly, the Federal revenue collecting and redistribution system is essential to achieving the State's goals in housing, income maintenance, health care, and access to education and other social services.

Portland's former Mayor Pamela Plumb put it this way:

> No matter how creative each of us may be in our own communities and states, we cannot cure the inherent regional disparities across this vast country of ours; we cannot solve nationally-rooted problems single-handed; we cannot replace the vast resources of the Federal government's money-collecting machine.[34]

Second, with more responsibility for the design and delivery of social programs passed to the states, there are substantial planning implications for State and local governments. Needed will be better definitions of goals, more information about the effectiveness of services, and better data or "indicators" of progress made toward social goals. Interagency policy planning and greater collaboration between public, private and corporate interests will be needed. Ironically, Federal funding reductions now threaten to gut State planning staff.

Third, as much the result of tight budgets as of logic or reason, the organization and delivery of human services will focus more on human problems

to be solved than on specific programs. The process is already underway in the Department of Human Services, a by-product of "block grants." A stronger focus on the "family" in the delivery of services is beginning to take place. And in the future, it is likely that human services will be used routinely by middle class families on a graduated, fee-paying basis. Observing the correlation between worker productivity and family well-being, corporations are moving to bring social services to the workplace. This practice is accelerating and suggests that new public-voluntary-corporate alliances for service delivery may be forged.

A fourth conclusion we might draw for future trends is less tangible. Given the current shift of responsibilities toward the states and away from Washington, there will be more opportunities for social experimentation by states. Historically, most of the country's social programs originated in the states. They were social laboratories in the past and could become so again.

Maine continues to be a place where dreams about liveability and quality of life can come true. The coast, next to some of the world's best fishing grounds, still excites the fisherman; the increasing value of homegrown meat and foodstuffs encourages the farmer; the prospects of new industry and better wages give hope to workers; dreams of small enterprises, self-sufficiency in energy and a better quality of life attract the new migrants, young professionals and the post-industrial minded. Native Mainers and newcomers alike have seen rivers and streams cleaned up, billboards come down and roadside trash disappear, leaving the perception that, regardless of the challenges ahead, things are manageable. This persistent belief in manageability, that Maine people can set their own course and control their own future, is probably the most hopeful indicator for the years ahead.

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CHAPTER IV
MAINE POLITICAL TRENDS
The Environment of Maine Politics
State and Local Political Institutions
Public Policies in Maine
Endnotes

A. THE ENVIRONMENT OF MAINE POLITICS

The Changing Federal System: An Overview

Maine's experience since 1940 demonstrates that federalism remains a vital and central principle of life in the American community.

Looking back over the last 40 years, the impact of the federal principle as carried forward by successive Congresses, Presidents, and national administrations has been massive in the scope of its effect on the political decision-making structure and process. National standards have penetrated deeply. The forms by which federalism has been articulated have been increasingly diverse. The impact was organized into legislative, executive, and judicial modes, with the force of each so great that it is impossible to rank one higher than the other in subtlety of application or durability of effect.

The resulting State and local government structure and process has been marked by three qualities. First, the principle of system has been inserted into the decision-making process at every point of political life, and has become a hallmark of Maine State and local government.

Second, every political institution in the State has had to respond positively to modern American society's emphasis on openness, participation, and personal respect for all, regardless of station in life or family background.

Third, the self-image of Maine State government and the self-image of town and county government have been markedly altered. What had become, to the observer and participant in the 19th and early 20th centuries, the

repositories of the dull and routine, took on a new vigor and gained a new sense of role and purpose by the late 1970's.

The code words associated with "system" (planning, programming, objectives, evaluation, cost/benefit and so on) have become the staples of political rhetoric, and they have at the same time become guides to political leaders and professional administrators in their attempts to understand their environment and give coherence to their activities. The language and the techniques of system have changed the behavior and the cognitive worlds of both public office-holders and citizens, just as they have changed the behavior and thinking of the world of private enterprise.

An integral factor and a necessary consequence of the systems approach thrust on Maine governments by federal programs has been the appearance of staff as a critical element in the effective operation of every public agency. It is a common-place observation about Maine's governments that every citizens' advisory group is ill-at-ease and uncertain of its usefulness until it manages to acquire the staff to organize its agenda, keep its records, monitor the impact of its advice, and serve as an institutional memory. Since 1940, the Maine Governor's staff has increased significantly, and numbers of Executive Department programs have so enlarged that the new processes have been created to administer and control them. The abolition of the Executive Council was another consequence of the pressure of system, a pressure pushing in the direction of accountability, democratic control, and results. The popular perception was that efficiency in State government did in fact require a close, professional monitoring of State administration by political representatives.

The Legislature also found itself driven, by the complexity of the financial and substantive relationships between the State bureaucracy and federal agencies, to develop its staff capability and review its committee work and internal processes.

Secondly, changes in the Federal system demanded more openness, public participation and equal treatment of citizens.

The Congress demanded in 1964, in establishing the Community Action Program (CAP), that its activities be carried out with the "maximum feasible participation" of clients. This principle became the symbol of the general mandate from the Federal government—to itself as well as to recipients of its grants—for openness in government and for an involvement in decision making of ordinary citizens. Maine's present stress on the openness of public meetings and records is a consequence of the climate of public opinion within which the Federal government was working and for whose creation the Federal government was largely responsible. Rights of women, the handicapped, and institutionalized persons were mandated by Federal law.

The stress on openness was evident also in decisions of the United States Supreme Court requiring that an arrested person receive an explanation of

his or her rights and that other public proceedings include the "informed consent" of participants. In several re-apportionment decisions of the U.S. Supreme Court, beginning with *Baker v. Carr* in 1962, legislative boundary lines, including those of the Maine Senate, were redrawn to insure a greater representation of towns and cities in the Legislature. They also created a change in the composition of the Legislature by opening the Legislature to the membership of young people and to women in greater proportion.

Out of all this has come the third characteristic of State and local government today, which contrasts with 1940's government. This is the change in the self-image of the State. While Oliver Wendell Holmes, Jr. might see the states as "laboratories of social experiment," and therefore of distinction in the American system, the general condition of affairs among the states in 1940 was otherwise. In the first half of this century, Maine State government by and large continued to fulfill the responsibilities it had always borne: basic road building, elementary supervision of local government, general oversight of public primary and secondary education and the funding of the colleges which trained the teachers for these schools, some monitoring of law and order in remote rural areas, and the operation of a few medical or specialized care facilities. The general tone of State administration in the 1940's was one of routine. The aim of the Constitution seemed to be to keep State government from doing very much, and to compensate those who did anything very little. The Legislature, with its rural bias, seemed insensitive to the problems of the cities. The geographical center of the state might be Augusta but, it was said, the political center was Aroostook County. Legislative voting behavior generally confirmed this evaluation.

The size and number of administrative agencies increased dramatically in the 1960's and 1970's as federal grant money was used not only for operating established programs, but as seed money for developing additional ones. As the members of the post-World War II baby boom came out of college, the fluidity, reform orientation, and new purpose of Maine government within the federal system made work in State administration desirable. Namely, government promised both tangible rewards and the intangible benefits of meaningful professional challenge. A sleepy Augusta came alive with public and private entrepreneurs shepherding projects from conception to fruition.

What the State was doing was exciting and made sense. Even more than national programs, State government provided an opportunity for ideas to be tested and shaped in the reality of human relations. Maine State government became a worthwhile bank in which to invest one's talents. A State employees' union grew in membership and in vigor. The self-esteem of a vigorous State, exploring new frontiers, emerged.

What of the future, or at least the future to 1990? At times, over the last forty years, the relationship of State and Federal administrations to each

other has become confused in the mind of almost every practitioner and theoretician of public management. Easily enough there have been moments when it was assumed that a unified national administration was emerging in which the states and local governments were simply lower-echelon elements beneath national administrative supervisors. But there is evidence that the national government will, within very broad latitudes, leave to the states more of the responsibilities for overseeing programs in the coming decade.

This means that the challenge to Maine's policy imagination will remain. It means that the need to maintain a flexible, effective human administration will be all the more present. It means that the search for resources to carry out the future will become paramount among the State's concerns. Block and categorical federal grants will no doubt continue. But the real action is likely to be in the area we might loosely call that of general revenue-sharing. In one way or another, the Federal government will encourage the states by transferring back to them programs, if not revenues.

The Federal thrust of the mid- to late-1980's is likely to involve, as far as prophecy is possible, emphasis on quality of life in the work place and on extensive revision of a decision-making process in the work community, within the company and the corporation. There will be a role for State government in this. Indeed, it is likely that the centrifugal movement of responsibility for execution will be a mark of the late 1980's. It is not impossible that the states in the United States will become like German state government: local officials carrying out State law, but also acting as the principal operating administrators of national policy.

Trends in Maine State and Local Government Finances, 1942–1980

One rough measure of governmental fiscal involvement in the economy is the ratio of government revenues to personal income. General revenue of State and local governments in Maine increased substantially relative to State personal income over the period 1942-1980, revenue per $1,000 of personal income rising by a factor of 2.6 (Table 1). Maine's record reflects a general nationwide trend of increased state and local government fiscal activity, and for the U.S. as a whole, state and local general revenue per $1,000 of personal income rose by a factor of 2.3 in the same period (Table 1).

However, taxes levied by Maine (and other state and local governments) did not rise rapidly relative to personal income as did total general governmental revenue coming from all sources. For Maine, State and local taxes per $1,000 of personal income rose only by a factor of 1.8 between 1942 and 1980 (Table 2). The decrease in the relative importance of taxes was made possible by increased non-tax revenue sources, and by increases in Federal aid. Maine's ratio of general revenue from its own sources to total general revenue declined from .90 to .71 from 1942 to 1980 (Tables 1 and 3). The longer-

Table 1
General Revenue of State and Local Government Per $1,000 of Personal Income, 1942 to 1979-80

Year	Maine	Maine as % of U.S.	U.S.
1942*	$ 84.29	99%	$ 85.10
1953*	110.64	115	96.44
1957**	114.78	105	109.44
1962**	139.55	105	132.47
1966-67**	154.23	98	157.11
1971-72**	223.47	114	195.47
1976-77**	216.02	104	207.61
1979-80**	217.58	110	198.02

*U.S. Dept. of Commerce, Bureau of Census, *State and Local Government Finances in 1942 and 1957.* Table 3.
**U.S. Dept. of Commerce, Bureau of Census, *Historical Statistics on Governmental Finances and Employment.* Table 19.
***U.S. Dept. of Commerce, Bureau of Census, *Governmental Finances in 1979-80.* Table 25.

Table 2
State and Local Taxes Per $1,000 of Personal Income, 1942 to 1979-80

Year	Maine	Maine as % of U.S.	U.S.
1942*	$ 71.06	102%	$ 69.67
1953*	89.44	121	73.84
1957**	88.49	107	82.64
1962**	103.00	109	94.49
1966-67**	104.53	99	105.09
1971-72**	146.72	115	127.88
1976-77**	124.81	97	128.09
1979-80***	125.04	108	115.74

*U.S. Dept. of Commerce, Bureau of Census, *State and Local Government Finances in 1942 and 1957.* Table 3.
**U.S. Dept. of Commerce, Bureau of Census, *Historical Statistics on Governmental Finances and Employment.* Table 19.
***U.S. Dept. of Commerce, Bureau of Census, *Governmental Finances in 1979-80.* Table 25.

Table 3
General Revenue from Own Sources per $1,000 of Personal Income

Year	Maine	Maine as % of U.S.	U.S.
1942*	$ 76.22	98%	$ 78.10
1953*	98.53	114	86.31
1957**	100.94	103	98.42
1962**	117.67	103	114.57
1966-67**	124.37	95	130.63
1971-72**	172.50	109	158.90
1976-77**	154.20	95	162.15
1979-80***	154.65	100	155.01

*U.S. Dept. of Commerce, Bureau of Census, *State and Local Government Finances in 1942 and 1957*. Table 3.
**U.S. Dept. of Commerce, Bureau of Census, *Historical Statistics on Governmental Finances and Employment*. Table 19.
***U.S. Dept. of Commerce, Bureau of Census, *Governmental Finances in 1979-80*. Table 25.

term trend of growth in the relative importance of State and local fiscal activity has been moderating in recent years and may be reversing. For Maine, general revenue per $1,000 of personal income declined between 1971-72 and 1979-80.

Maine's revenue and tax effort have been more-or-less consistently above the average for the U.S. as a whole over the period (Tables 1 and 2). However, because of the State's relatively low level of personal income, the resulting rates of per capita spending have been less than the national averages. For all years between 1957 and 1980 for which data were examined, Maine's total general expenditure for state and local governments fell at least 10 per cent below the national average (Table 4). On the assumption that public service inputs are no cheaper in Maine than elsewhere and that public service productivity is no higher in Maine than elsewhere, it is reasonable to conclude that despite their higher tax effort Maine residents throughout the period have experienced lower levels of public service than their counterparts have, on the average, elsewhere.

The mix of revenue sources has changed substantially for the State and its local governments since 1942. As noted above, aid from the Federal government now accounts for a much larger share of State and local general revenues than it did earlier in the period. The composition of revenues from the State's own sources have also altered. Non-tax sources of State and local own-source revenues have risen steadily over the period, as taxes as a per cent

Table 4
Per Capita General Expenditure of State and Local Government, 1942 to 1979–80

Year	Maine	Maine as % of U.S.	U.S.
1942*	$ 67.05	98%	$ 68.62
1953*	NA	NA	NA
1957*	202.51	85	236.98
1962**	290.79	90	324.00
1966–67**	399.79	85	471.79
1971–72**	718.90	89	809.43
1976–77**	1104.15	88	1206.86
1979–80***	1405.33	87	1621.77

*U.S. Dept. of Commerce, Bureau of Census, *State and Local Government Finances in 1942 and 1957.* Table 9.

**U.S. Dept. of Commerce, Bureau of Census, *Historical Statistics on Governmental Finances and Employment.* Table 18.

***U.S. Dept. of Commerce, Bureau of Census, *Governmental Finances in 1979–80.* Table 24.

of own-source revenues declined from 93 per cent in 1942 to 81 per cent in 1979–90.

The property tax has shown a substantial decline in relative importance. In 1942, the property tax accounted for nearly 50 per cent of state and local own-source revenues, but by 1979–80 it accounted for less than a third. According to a report prepared by the Maine State Planning Office:

> Because of the growth of intergovernmental transfers and of property values, the property tax rate in Maine has fallen over the last decade from a peak of 4.2 per cent in 1970 to 1.9 per cent in 1979. In comparison, the U.S. average peaked in 1972 at 5.3 per cent but has fallen to only 4 per cent. More recently, the growth of both intergovernmental transfers and property values has slowed considerably. Thus, many Maine communities have had to raise property tax rates and seek other sources of revenue to meet ever-constant demand for municipal services.
>
> In spite of these relatively low rates, however, the burden of property taxes in Maine is higher than the national average. In 1980, property taxes in Maine took nearly 5 per cent of personal income compared to the national average of about 3.5 percent. The reason for this discrepancy is Maine's below average *per capita* income and its above average reliance upon the property tax for local revenues. In Maine, property taxes account for over 99 per cent of all local taxes whereas for the nation as a whole they account for only 76 per cent of all local tax revenues.[1]

The motor fuel tax has also shown a large decline in relative importance, dropping from a peak of 13 per cent of own-source revenues in 1957 to only 4 per cent in 1979–80, well below the 1942 figure of 11 per cent. General sales and income taxes, which now account for a total of 34 per cent of state and local own-source revenues, were non-existent in 1942. The income tax has increased rapidly in relative importance since its introduction, but the rate of increase in the relative importance of the sales tax has been minor over the last 15 years.

When the revenues of state government are examined separately, certain patterns emerge. According to data prepared by the State Planning Office:

> Between 1960 and the present, the sources of state revenue have remained fairly consistent, with 33 percent coming from the federal government, 65 per cent from the State, and 0.8 per cent from local government. The major trend in the pattern of state revenues has been the increasing importance of the state personal income tax. (See Figures 1 and 2). Revenues from this tax increased from $0 in 1967 to $180 million in 1980, about one quarter of total state government tax revenue. The State income tax is an elastic tax: it increased 22 per cent from 1979 to 1980, even through recession, compared with the 2 per cent increase for the corporate income tax and 3 per cent for the sales tax.[2]

Current developments suggest that increased State and local reliance on the Federal government is not likely to continue into the near future. In the past, increased dollar amounts of Federal aid may have substituted for State and local own-source revenues or constituted a net addition to these revenues. In light of recent and prospective declines in Federal aid, State and local governments will have to determine what adjustments to make. If Federal aid as served as a way of avoiding increases in State and local taxes in the past, it is likely that own-source revenues will be substituted for Federal support. On the other hand, if Federal aid has acted to increase State and local spending above what the political system would have supported in the absence of that aid, cut-backs in expenditures are likely. In fact, some combination of these responses will likely occur. State and local adjustments to a decline in Federal aid will be made more difficult by pressures on State and local government to replace Federal efforts in areas in which the Federal government's direct expenditures are themselves being cut back.

Can projected total Maine State and local government revenues be counted upon to meet anticipated expenditure needs through 1990? State and local government expenditures are dependent upon several factors: the needs of the State; the role of government in addressing those needs; the ability and willingness of citizens to pay for services; and the efficiency of government in providing services.

While it is not possible to predict actual State and local government expenditures and revenues in 1990, it is possible to project what expenditures and revenues could be under a given set of assumptions. On the expenditure

Figure 1

Revenues, Maine State Government*
(millions of $)

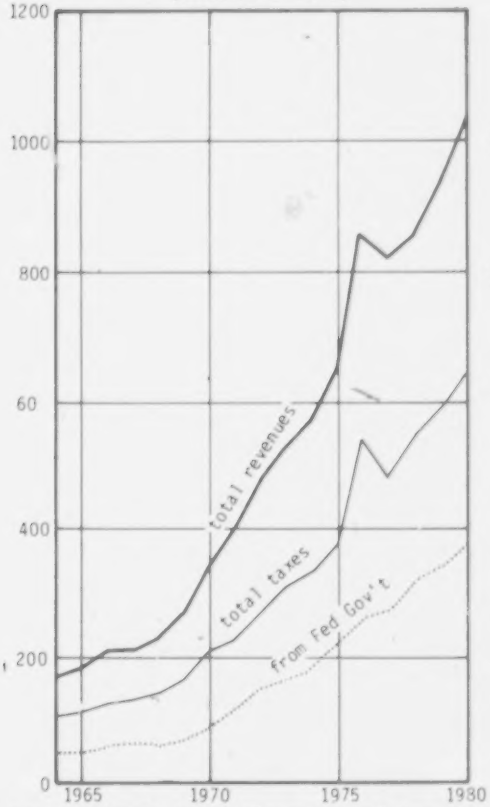
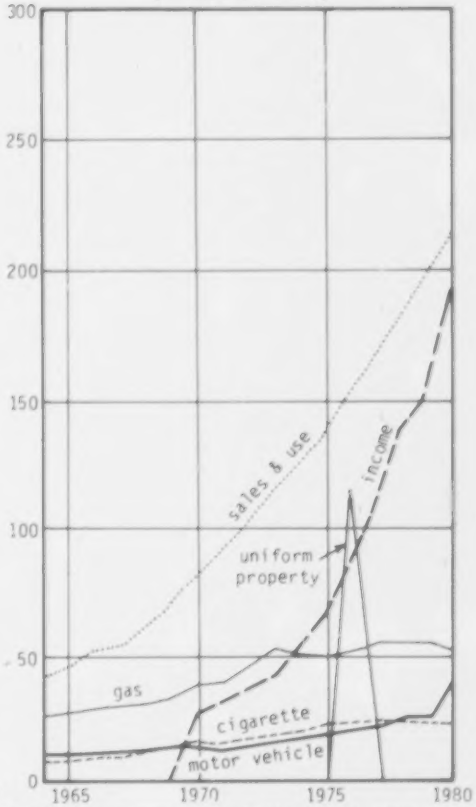


Figure 2

Tax Revenues,
Maine State Government*
(millions of $)



Source: Veazie, Carl. "Revenues and Expenditures of Governments in Maine 1960–1977." Updated to 1980.

***Local revenue is too small to be depicted.**

side, the assumptions are that the level of current services remain the same in real, that is uninflated, terms and that demographic changes will shift the allocation of funds from education toward human services due to the aging of the State's population. (See Chapters VI and VII).

The specific assumptions of our projection are as follows:

- State and local tax rates will remain unchanged;
- Property tax revenues will rise at the rate of inflation (6.5 per cent) as a result of assessment increases;
- Other local revenue sources and State tax revenue other than the personal income tax will rise at the rate of total income growth (9.5 per cent) per year;
- Revenues from the State income tax will increase at the rate of inflation; and

- Federal revenues for income maintenance will grow at a rate of 6.5 per cent per year; other federal revenues will decline by a third.
- Expenditures are projected on the basis of current program levels.
- Federal revenues for income maintenance will grow at a rate of 6.5 per cent per year; other federal revenues will decline by a third.
- ☐ Expenditures are projected on the basis of current program levels.

Putting the expenditure-revenue projections together yields the following results:

Table 5
Hypothetical State and Local Government Expenditures and Revenues, 1990

Unit	Expenditure	Revenue	Surplus (Shortfall)
State	$1,800M	$1,790M	$10M
Local	1,470M	1,400M	(70M)

Source: State Planning Office

These figures indicate the potential for a significant revenue shortfall at the local level, and for the State to be unable to cover that shortfall without a tax increase. However, since the discrepancies in each case are only 5 per cent of the total revenues, broad conclusions should not be drawn from them.

This projection, however, yields some rather interesting information. Health and welfare and general government expenditures are expected to expand as a proportion of total State and local government expenditures. At the same time, the proportions spent on highways and education will likely decline. As a result of this shift, State government, which at present is largely responsible for income maintenance programs, is projected to have a larger share of total State and local government expenditures. Also, due to this change, the State's proportional share of federal revenues is expected to increase.

These projections should be considered with the utmost caution. They are based on the assumption that current expenditure levels will adequately fund needed services, but is this an accurate assessment? It most likely is not. Under the current budget squeeze, both State and local governments are deferring needed capital improvements.

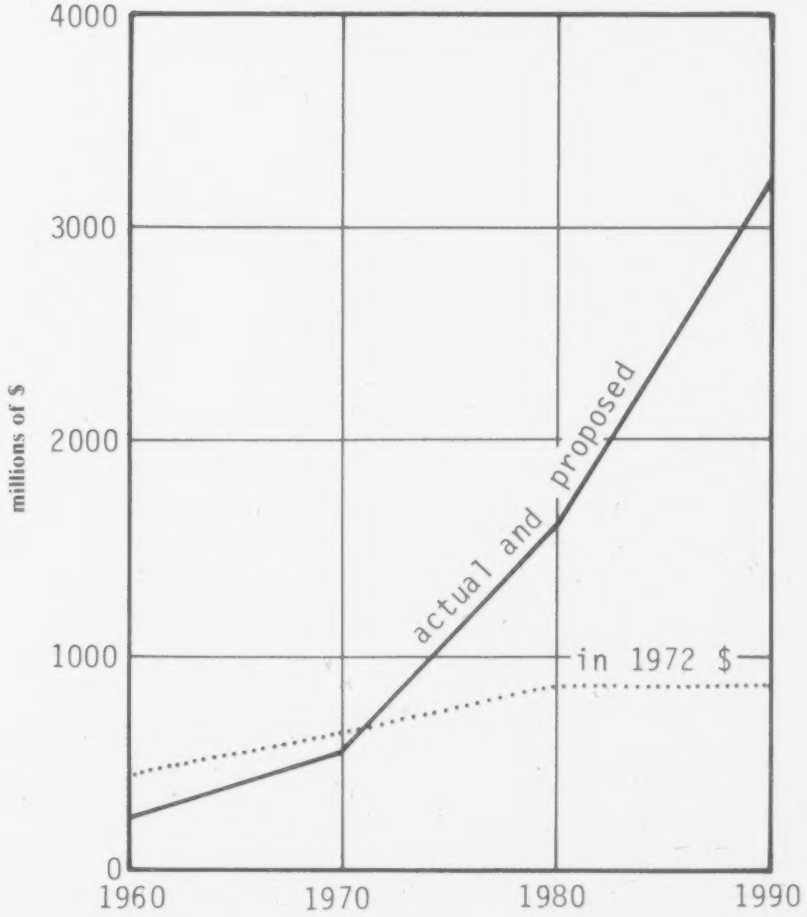
While we have been enthusiastically solving individual problems and pumping local, state and federal funds into sewerage treatment facilities, highways, bridges and schools—that is, into building capacity— we have not planned for how we will raise the funds to maintain them. Our dilemma is

even greater in light of budget cuts because we have not yet even finished the building process in Maine, particularly sewerage treatment facilities, and we have neglected maintaining many of our older infrastructures such as our water supply systems, waterfronts and correctional facilities.

The projected expenditures, which are level from 1980 to 1990 in terms of 1972 dollars (Figure 3), are misleading in another crucial way as well; they are based pon the assumption that no new servoces will be required of State and local government in the 1980's. This contradicts the experience of the last twenty years, and the evidence of increasing public concern over environmental issues (such as toxic waste) and economic development.

Figure 3

Total State and Local Government Expenditures



The projections are also based on the assumption that the State and national economy will grow at the same rate as in the 1970's, and in particular, that real income growth will total 3 per cent per year. This has not been the experience of the last two years, which has seen no growth because of the recession. Evidence of fundamental structural problems in the nation's manufacturing sector also casts doubt on this assumption. If we project real income growth at a 2 per cent annual rate, the actual rate experienced in the 1970's, a different picture emerges: total state and local revenues would be $3,140 million, a $135 million shortfall. The deficit would be shared by local governments ($95 million) and State government ($40 million).

Political Attitudes

During the formative years of the new American nation a struggle—yet to be resolved—was initiated between those led by Jefferson, who supported the values of a rural agrarian society and those under the leadership of Hamilton who espoused the development of an urban mercantile society. Eventually, political divisions built around these differences were institutionalized in a political party system. In the 1980's, the residue of this early conflict is reflected in the struggle between those who favor the preservation of Maine as a largely rural state with a clean environment and a cherished if economically poor quality of life, and those who would like to see Maine become more industrialized to enhance job opportunities and to lift citizens from marginal economic subsistence.

As lichens cling to stone, the people of Maine cling to their institutions and communities. They greatly value clean air, scenic beauty, and uncrowded areas. They even like the weather and the "slow pace" of things. Som like Maine because of the solitude and "quiet", and others cite opportunities for recreational activities. They like their communities—most people plan to live in them for the next twenty years—and most feel that their communities are "improving". And, if given a choice, over 63 per cent would live in a "rural community".[3] Unfortunately, Maine people seem to take for granted their rich quality of life. Few express concern about clean air and water, damage to the environment, or loss of open space. The most pressing negative attitude about living in Maine, the most central concern expressed in all studies of people in Maine, is economic insecurity.[4] They do not, as yet, have the luxury to pursue a politics of style or of leisure. They are still dealing with issues more appropriate to the 1930's than to the 1980's.

As a consequence of perceived needs for additional economic opportunities, many people support the development of oil refineries along the coast and, until recently, a majority favored the development of additional nuclear energy plants.[5] Even if such development would result in permanent

environmental damage, nearly half the citizens would support these forms of development for it is generally felt that oil refineries and nuclear energy plants would result in generalized economic growth. There is an old saying, "all were optimistic because they could always say 'I've seen worse' ". Jobs are scarce, incomes are low, and life is not always that easy in the State of Maine. Maine people generally favor economic development, and it follows that they envision a future with economic growth, including oil refineries, nuclear plants and more job opportunities. However, there are considerable differences of opinion regarding whether or not these changes will have positive impacts.

The conflict between the traditional values of rural society and those of modern mass society are partially divided along partisan lines. The Democrats are considerably more favorably inclined toward public power than are Republicans and Independents. They agree with Republicans on the desirability of an oil refinery; and they are divided, as are Republicans and Independents, on the issue of nuclear energy.

Maine people are not committed to preserving a social and economic system without change. Their operational liberalism is in sharp conflict with their self-professed political values. Maine people see themselves as more "conservative" than people in the rest of the nation. As one might expect, Republicans are considerably more likely to see themselves as "conservative" than are Democrats or Independents. The Maine Independent is even more likely than a Democrat to describe his or her ideology as "very liberal". This finding complements other data showing that the Maine Independent is as involved in the political process as a partisan, and is even more likely to contribute to campaigns and to discuss political issues.

Given the fact that political attitudes often change at a glacial pace, it would be foolhardy to expect large changes in the ways Maine people evaluate the political process in the 1980's. At the same time, it is possible to discern certain trends that seem likely to shape the Maine voter. Issues relating to economic development, job opportunities and subsistence will continue to be foremost in the minds of the people, but somewhat less salient than during the last 20 years. Concern about policy issues will increase as a result of a single-issue organizations and activities highlighted by the mass media. One might also anticipate some shifts in voter interest from economic concerns to quality-of-life, environmental, and recreational issues.

The basic political conflict between economic development and preservation of the environment will in all probability not be resolved during the 1980's. As noted by a Maine citizen in response to a University survey, "while you're looking at the trees you could starve to death". As long as the issue remains that stark, the ideas of post New Deal theorists have little to offer.

Electoral and Party Trends

Electoral trends in Maine since 1940 have reflected in most respects similar trends nationally and in other states. Party competition has increased, but there is also evidence of party decomposition.

In the 1940's Maine was still a heavily Republican state (Table 6). However, Edmund S. Muskie's election as Governor in 1954 constituted a major breakthrough to party competition. By 1970, the Democrats held the governorship, a U.S. Senate seat, both U.S. House seats, and substantial representation in the State Legislature. During the 1970's, however, young Republicans of moderate views led by Senator William S. Cohen have won both House seats as well as a Senate post.[6] Maine began the period as a

Table 6
Democratic Per Cent of the Vote for Major Offices and Democratic Per Cent of State Legislative Seats, Maine, 1940–1982

Year	Gov.	Pres.	U.S. Sen.	U.S. House Dist. 1	U.S. House Dist. 2	U.S. House Dist. 3	State Senate	State House
1940	36.1	48.8	41.3	36.6	35.4	33.9	6.1	13.9
1942	33.2	-	33.3	43.0	32.4	0.0	3.0	9.3
1944	29.7	47.4	-	31.2	32.2	22.1	3.0	9.3
1946	38.7	-	36.5	40.4	39.3	27.1	9.1	15.9
1948	34.4	42.4	28.7	37.5	32.8	29.1	15.2	16.6
1950	39.1	-	-	46.0	42.3	37.1	6.1	15.9
1952	33.2	33.8	34.9	38.4	32.9	23.8	6.1	15.9
1954	54.5	-	41.4	47.9	46.0	39.5	18.2	22.5
1956	59.2	29.1	-	50.0	53.4	39.4	24.2	33.8
1958	52.0	-	60.8	52.1	61.2	44.1	36.4	37.7
1960	47.3	43.0	38.4	46.2	46.5	35.9	9.1	25.2
1962	49.9	-	-	40.4	49.1	-	17.6	26.5
1964	-	65.5	66.6	49.9	62.0	-	85.3	53.0
1966	53.1	-	41.0	50.4	56.8	-	29.4	36.4
1968	-	55.3	-	56.6	55.7	-	43.8	43.7
1970	50.1	-	61.9	59.2	64.2	-	43.8	47.0
1972	-	38.5	53.2	59.4	45.6	-	33.3	47.7
1974	36.3	-	-	49.8	28.6	-	42.4	60.2
1976	-	49.6	60.2	42.6	19.7	-	36.4	57.6
1978	47.7	-	33.9	35.8	40.8	-	39.4	51.0
1980	-	42.3	-	31.5	21.5	-	48.5	55.6
1982	61.1	-	60.9	47.9	33.3	-	69.7	60.9

modified one-party Republican state,[7] but now is classified as a competitive two-party state.[8]

The Democratic breakthrough was triggered by Republican factionalism, a liquor commission scandal, and the attractiveness of new Democratic leadership that engaged in party building efforts.[9] This was not, however, a realigning period involving conversion of particular social and economic groups formerly supporting the other part; rather it involved a general mobilization of support across the board.[10] The shift occurred within the mold of the New Deal alignments. Communities most strongly Democratic in 1940 generally remained the most strongly Democratic in the 1970's.

One consequence of the new competitiveness has been greater voter turnout (Table 7). Presidential election turnout has remained high, contrary to national trends. After 1954, turnout increased for gubernatorial elections, probably reinforced by the moving of elections to November with the rest of the nation, which first occurred in 1960. The scheduling of quadrennial gubernatorial elections in off-years has resulted in lower turnouts than in presidential elections. Slight gains in turnout most recently might be attributed to the availability of election day voter registration.

Another consequence of increased competition has been efforts to strengthen state party capabilities. The parties have established permanent headquarters, hired staff, modernized fund raising (including direct mail), and recruited and provided financial and other support to legislative candidates, especially during the last decade.

The most dramatic evidence of party decomposition was the election of independent James B. Longley as Governor in 1974. He won support from friends and neighbors in Androscoggin County and appealed to the anti-politician mood of that Watergate year.[11] His success may have reinforced this mood and encouraged several independent candidates. Voters increasingly consider themselves independents; a third now are enrolled in neither party (Table 8).

Split-ticket voting, as measured roughly by the percentage-point gap for candidates for statewide offices, has increased. In the five simultaneous Gubernatorial and Senate elections from 1940 to 1952 (Table 6), the average difference was 3.0 points. In the four simultaneous elections including presidential elections in the 1970's, the average gap was 13.0 points.

Decomposition has also enabled Democratic state legislative candidates to win in predominately Republican areas, while Republicans have been able to pick up a few seats in heavily Democratic territory. Furthermore, for statewide offices, the gap between the most Democratic and the most Republican communities may be declining. In 1980, Reagan gained votes in heavily Democratic municipalities and Carter gained or held his own in many Republican areas.

Table 7
Voter Turnout for Governor and President
Maine 1940–1980

	Governor		President	
Year	Votes	Per Cent*	Votes	Per Cent*
1940	255,047	47.8	320,840	60.2
1942	176,605	33.1		
1944	287,632	53.9	296,400	55.6
1946	199,951	34.7		
1948	222,500	38.6	264,787	45.9
1950	241,177	41.8		
1952	248,441	43.1	351,786	61.0
1954	248,971	43.2		
1956	304,679	52.4	351,706	60.5
1958	280,245	48.2		
1960	417,215	71.8	421,767	72.6
1962	292,725	50.4		
1964			380,965	65.6
1966	323,838	54.3		
1968			392,936	65.9
1970	325,386	54.6		
1972			417,042	64.3
1974	363,945	56.1		
1976			483,216	65.0
1978	370,258	57.1		
1980			523,011	66.1
1982	460,295	54.8	-	-

*Per cent of voting-age population in closest census. The 1978 gubernatorial figure is based on the 1970 census. The 1976 and 1980 presidential figures are from Austin Ranney, ed., *The American Elections of 1980* (Washington, D.C.: American Enterprise Institute, 1981), p. 352. The 1982 gubernatorial figure is based on a November 1982 population projection generated by the State Planning Office Maine Economic Policy Analysis Model.

Adoption of the office-block ballot both reflects and reinforces these trends. Voters are encouraged to consider candidates for each office as individuals, and candidates are encouraged to campaign independently rather than as members of a party slate.

Two other major electoral developments indicate distrust of established institutions. Increasing use of the initiative and referendum suggests citizen or special interest impatience with an apparent inability or unwillingness of the legislative parties to address their concerns. Substantial campaign finance

Table 8
Voter Registration and Enrollment in Maine, 1954–1982*

Year	Enrollment at Time of Primary				General Election Total Enrolled
	Republican	Democratic	Unenrolled	% Unenrolled	
1954	262,367	99,386	-	-	480,658
1956	250,734	103,419	-	-	485,960
1958	252,443	112,066	-	-	483,875
1960	247,314	119,048	-	-	537,922
1962	241,448	134,008	-	-	496,029
1964	239,440	138,764	-	-	522,236
1966	233,399	157,579	-	-	509,888
1968	227,199	160,437	-	-	529,137
1970	223,399	157,579	-	-	522,044
1972	239,534	190,831	146,550	25.4	615,546
1974	237,828	212,175	163,224	26.6	631,873
1976	226,680	224,753	175,017	27.9	695,595
1978	223,824	234,710	207,251	31.1	691,697
1980	218,556	242.209	223,664	32.7	759,978
1982	224,440	247,199	261,825	35.7	766,285

*Number and percentage enrolled at time of primary unavailable before 1972.

regulation now requires regular and complete reporting and limits contributions, including those by parties.

The Maine Republican and Democratic Parties, expressing concern about the decline of parties, established in 1979 a Joint Committee on Party Renewal. Its 1980 report contained a series of weak recommendations; there is no evidence it has had any impact. A package of party reform proposals was defeated at the 1980 Republican State Convention. The Democratic Party has concentrated on conforming to national party guidelines for encouraging participation in party affairs.

In the 1980's the two major parties will survive; such well rooted institutions do not quickly wither. Yet we should evaluate particularly carefully any good election legislation, not only in terms of participatory democracy, but also for its impact upon the ability of parties to maintain a responsive and responsible democratic system.

B. STATE AND LOCAL POLITICAL INSTITUTIONS

The Executive

With the exception of the domed capitol building, the brick structure housing education programs, and the park stretching toward the Kennebec River, a visitor to Augusta from 1940 would find little to recognize in the programs of state government or in the buildings that house them.

Five large new office buildings and a parking garage have been built to accommodate increased numbers of employees for both old and new governmental functions. Entire departments—Conservation, Environmental Protection, Marine Resources, and Business Regulation—were moved out of the capitol area to new locations. The new homes were provided in part by remodeling buildings vacated by changing mental health and corrections programs. Although traditional functions, such as the constitutional offices, fisheries, education, state library, warden and park service, highways, and health and welfare remained important, these changed in response to modern program and administrative needs that were supported by a great infusion of federal grants and expanded revenues from State sources.

During the 1940's the merit service created in 1937 was still being developed, and in that decade the State Retirement System came into being. Normal schools became teachers colleges, then state colleges and, in the late sixties, part of the University of Maine system. Preoccupation with the war established Civil Defense and Veterans Service programs. Concern over pollution created Water Improvement and State Soil Conservation Commissions. New construction programs led to the Bureau of Public Improvements in 1957, and to the Capitol Planning Commission a decade later. Special offices were set up for Indian Affairs and Canadian relations. The Department of Commerce and Industry was established in 1955 to create jobs. Other new programs were organized for Drug Abuse, Mental Retardation, Human Rights, Historic Preservation, Criminal Justice, Affirmative Action, Collective Bargaining, Consumer Affairs, Land Use Regulation, Archives, Community Affairs, and Housing.

Many organizational changes in the 1970's were motivated by principles emphasizing gubernatorial control and a need for a central management staff. To manage functions more effectively, the Governor's term was extended to four years, the Executive Council was abolished, and most state functions were reorganized into fewer than twenty Departments headed by a Commissioner directly appointed by the Governor. The Governor this coordinated the major departments through a cabinet system. Largely through Federal funds, research and policy planning assistance to the Governor was

provided not only through a new State Planning Office, but also in such areas as criminal justice, transportation, education, health, and energy.

An issue of State politics for the eighties agenda that is a traditional one, but which also results from present day ideas and relates to a population that is in transition, is the issue of the proper role of State government in equalizing opportunities in education, income, housing, and health. Have past programs truly overcommitted and overloaded federal and State governments? Will welfare return to the family and private (corporate) philanthropy? Will the State maintain a minimum income level for unemployed and underemployed, for parents, the handicapped, and for seasonal workers?

As a second issue, Maine state government will need to find immediate and long-range solutions to financial problems caused by a decline in revenue. Fuel taxes are insufficient to build and repair highways. Some cutbacks in federal budgets will have to be restored by the states. Inflationary costs for employee salaries and governmental borrowing for new construction must somehow be met. Pension payments and additions to State retirement system assets may be funded more and more by government contributions from general revenues.

A third issue is the design of a governmental organization that is appropriate to these times. Through subsidies, such as school and highway formulas, the State has attempted to equalize the ability of municipal governments to finance local government programs. One result has been to maintain 498 municipal governments and many special districts that frequently lack adequate tax bases to finance the programs that they operate. Will public preference for local control continue to be a sufficient reason for financially supporting units that lack adequate revenue, population, and management resources? Financial incentives to equalize interlocal, metropolitan or county-wide programs may have to be considered if equal services are to reach all our people. The structure and processes within the Executive Department itself will continue to adapt to the needs of the eighties. The areas most likely to need emphasis or reorganization are state-local relations, housing, county and regional administration and financial support, energy and utility concerns, and public transportation.

Although it is closely related to the financial problem of operating State government, a fourth issue is the replacement of obsolete public facilities. This problem must soon be addressed. Maine's public facilities— its water and sewer lines, utility lines, railroad beds, bridges, waterfronts, highways, jails, municipal treatment plants, and its schools—are deteriorating year by year. Tight money, high interest rates, and inflation defer both maintenance and construction. An issue during the years ahead will be creation of one State capital plan and budget to at least maintain the quality and quantity of nearly every type of public facility, and to prevent Maine's physical infrastructure from changing public works to public ruins.

The Legislature

Compared to 1940, the issues currently considered by the Maine Legislature are both different and more complex. Several of the problems that stand near the center of the legislative agenda today was almost unknown in 1940. Included among these issues are nuclear power, the status of women and minorities, the physical environment, consumerism, and intergovernmental relations. Another group of pressing issues today were also important in 1940, but in a different, usually less complicated form. Such interests include the provision of public transportation, the maintenance of a highway network, more efficient utilization and conservation of natural resources, support of education, and improvement in the system of corrections. The much larger volume of public questions in 1980, and their complexity, is revealed in the change over forty years in the state budget. Maine state government in 1980 received and spent approximately thirty-two times more funds than in 1940.

During the 1940–80 period, the Legislature itself changed significantly as did the issues it was called upon to solve. The modifications were due partly to the shifting nature of the questions the Legislature confronted. The transformation was also in part a product of larger forces in the society over the 1940–80 period such as alterations in the political party system, in Federalism, in executive-legislative relations, and in the State constitution. Two basic trends in the Legislature during the period stand out in particular. One is the gradually increasing heterogeneity of legislative membership. The other is the gradual institutionalization of the Legislature as a political body.

The 1940–80 period was one in which the Legislature became more socially diverse and cosmopolitan in its composition. In 1941, legislators who listed their occupation as either farmer or small businessman made up nearly half (49 per cent) of the House. In 1981, the occupational groupings of legislators were more spread out. The number of farmers, for example, declined from 32 in 1941 to 4 in 1981. The largest occupational category in 1981 was comprised of retired persons. Still another important change was the rise in the numbers of women in the Legislature. In 1941, there were four women in the entire Legislature. In 1981, there were 33 women in the House, including the majority leader, and the Senate had 6 women members. The rural, Republican, virtually all-male legislative body of the pre-World War II era had shifted to a more urban, more politically balanced, and more sexually diversified Legislature by the 1980's. (See Table 9).

A second broad change has been the institutionalization of the Legislature; in short, it has become a more permanent political body. The year 1940 actually marked the beginning of a part of that process. It was in that year that the legislature created the Legislative Research Committee. This Committee, composed of senior legislators, was charged with meeting be-

Table 9
Partisan Makeup of the Maine State Legislature

	House			Senate		
	Rep.	Dem.	Ind.	Rep.	Dem.	Ind.
1941-42	125	22	—	30	2	—
1943-44	137	14	—	32	1	—
1945-46	137	14	—	32	1	—
1947-48	127	24	—	30	2	—
1949-50	126	25	—	28	5	—
1951-52	126	24	1	31	2	—
1953-54	127	24	—	31	2	—
1955-56	128	23	—	27	6	—
1957-58	100	51	—	25	8	—
1959-60	93	58	—	25	8	—
1961-62	112	39	—	30	3	—
1963-64	110	41	—	29	5	—
1965-66	70	81	—	5	29	—
1967-68	96	57	—	24	10	—
1969-70	85	66	—	18	14	—
1971-72	85	66	—	18	14	—
1973-74	79	72	—	22	11	—
1975-76	59	91	1	19	14	—
1977-78	63	88	—	21	12	—
1979-80	73	77	1	19	13	1
1981-82	67	84	—	17	16	—
1983-84	59	92	—	10	23	—

Source: *The Maine Register* and Secretary of State

tween legislative sessions to study issues and to develop information and recommendations for the Legislature. A Legislative Research Committee staff director was added in 1946. In 1962, the Legislative Finance Officer was established to assist the Legislature in reviewing the governor's budget requests. In 1973, new demands for staff led to the abolition of the Legislative Research Committee and its replacement with the Office of Legislative Assistants. The 15 staff members in that office work primarily with standing legislative committees in developing legislation. The committees now meet between sessions as well as during legislative sessions.

Supported by new staff resources, the Legislature has undertaken new functions such as oversight of executive agencies. The 1977 Sunset Act, for example, established a 10 year schedule for legislative review of independent

agencies and state departments, and the automatic termination of independent agencies in the absence of legislation that continues their existence.

In the 1980's, a major activity will likely be the Legislature's work with Federal and local governments, especially in the area of negotiating grant arrangements involving the various levels. The Reagan administration's block grants may be a source of opportunity for policy-making innovations at the state level, on account of the discretion of new grants permit state decision makers. However, they may also encourage a degree of competition and even a deadlock among the legislative and executive branches.

A critical question in the 1980's concerns legislative salaries. The high demands of legislative service, in conjunction with the present low level of compensation, may make it increasingly difficult for actively employed people to seriously consider running for legislative office. Should salaries be raised? If changes are not made in salaries, the current tendencies toward diversity in legislative membership and toward legislative institutionalization may not be maintained.

The Court System

The courts of Maine have experienced more significant changes in the past 40 years than in any previous period in our history. Little occurred during the war years of the 1940's and the immediate postwar period, but one can trace dramatic developments in every facet of our judicial system thereafter. What emerges is a totally new picture of the third branch of government. Its procedures were brought into the mainstream; its structure institutionalized; its personnel professionalized and politicized; and its support facilities subjected to intensive study and planning to meet demands made upon the system and anticipated in the future.

The attack on old forms of pleading and practice continued through much of the period, resulting in new Rules of Civil Procedure (1959), new Rules of Criminal Procedure (1965), new Rules of Evidence (1976) and new Rules of Probate Procedure (1981). In each instance the Legislature granted the Supreme Judicial Court rule-making power, Federal rules were used as patterns, and each led to the publication of a practice work for the Maine Bar. The continuing partnership between the Judiciary, the Legislature, and the Bar in the development of these Rules created a climate conducive to change in other aspects of the court system.

At the beginning of this period there were 50 municipal courts with part-time lawyer-judges, 41 associate judges (recorders), more than half of whom were not members of the Bar, and 24 trial justices, only one-third of whom were members of the Bar. The trial court (Superior Court) was served by justices paid by the State but court expenses were borne by each county. Similarly various counties furnished chambers for the justices of the Supreme

Judicial Court whose salaries and expenses were paid from State funds. The Chief Justice, assisted by his secretary, performed necessary administrative tasks.

Prolonged and repeated efforts of the Judicial Council, the Legislature, and especially appointed commissions, and the constant leadership of the Judicial Department, aided by professional consultants such as the Institute of Judicial Administration and the National Center for State Courts, produced three major institutional reforms from 1961 to 1977.

In 1961, legislation creating the District Courts gave Maine a statewide system with 16 full-time judges, centralized administration, and state financing, to replace the municipal courts and trial justices.

In 1975 legislation provided administrative unification and State financing of the Superior and Supreme Judicial Courts. An Administrative Office of the Courts was created by statute in response to studies conducted over a five-year period. The Office was designed to serve the entire Judicial Department in the areas of caseflow management, statistics, facilities, personnel, training, system management, fiscal management, complaints, the Judicial Conference and general staff support. Because of the broad nature of these responsibilities, the State Court Administrator (who reported to the Chief Justice) relied heavily upon the regional court administrators. In addition to addressing daily court problems, the administrators evaluated various clerical and administrative processes, and devised more efficient systems, including uniform statewide financial, personnel, and purchasing systems.

Finally, legislation in 1977 (effective in 1978) brought the Administrative Court within the Judicial Department, again responsive to the Chief Justice as head of the department. Only the 16 county Probate Courts remain outside the State structure.

Several new challenges and items of unfinished business face the Maine courts:

- Deciding on the structure of the Probate Courts and the manner of selecting probate judges. Studying family court proposals;
- Creation of some kind of physical Court presence in Augusta—if only during legislative sessions.—to give visibility and stature to the third branch of government.
- Securing better compensation for the judiciary; reviewing the judicial pension system;
- Securing funds for needed improvements and replacements of court facilities in the wake of the failure of the public to ratify a bond issue for this purpose;
- Securing legislative appropriations for all essential court functions (few realize how massively the achievements of the past several years have been underwritten by Federal Law Enforcement Administration dollars and other grants);

- Fine tuning the use of present resources to stretch them to the maximum extent possible. Examination of the mandatory jurisdiction of the Law Court perhaps using some selectivity in accepting cases on appeal. Implementing the new "single trial" law. Increasing the use of mediation and arbitration. Monitoring the new appellate function of the Workers Compensation Commission;
- Identifying and controlling costs through more efficient use of jurors, assigned counsel for indigents, elimination of delays, and so forth;
- More open disciplinary procedures that satisfy the public's desire not only that justice is done, but is seen to be done;
- The application of modern technology (computers, word processing, microfilm/fiche, electronic recording) to the needs of the Maine court system.

To handle the increasing work load in this period (1940–81), the number of justices on the Supreme Judicial Court was increased from 6 to 7; the Superior Court from 7 to 14; the District Court from 16 to 21; the Administrative Court from 1 to 2. More flexible use of judicial manpower was achieved by legislation (1979) authorizing the Chief Justice to assign active retired Supreme Court justices to sit in the Superior Court, District Court judges to sit in Superior Court, and Administrative Court justices to sit in District Court.

Along with better management of the business side of the judicial department came intensive efforts to educate judges. Regular attendance at sessions of the Appellate Judges Seminar at New York University, the National Judicial College, and other pertinent conferences were and are scheduled for newly appointed judges. Others attend courses in developing areas of the law.

Despite a fivefold increase in judicial salaries Maine judges are still at the bottom of the scale among states in compensation.

Political pressures have come from within and without, reflecting both national concerns and a local determination to develop the judiciary as an identifiable and responsive branch of government. For example, the failure of legislatures to apportion properly led to Maine constitutional amendments in 1963 and 1966 sharing the power to apportion with the Supreme Judicial Court. National concern for integrity in government and law (due to both Ralph Nader and Watergate) led to establishment in Maine of a Committee on Judicial Responsibility and Disability (1978), to adoption of ethical standards in the Code of Judicial Conduct, and to promulgation of the Code of Professional Responsibility (1979). Similarly, procedures to screen candidates for judgeships have been developed—informally by Governors Curtis and Longley, and by Executive Order of Governor Brennan. The power to confirm judicial appointments was given to legislators in 1977. To make clear the needs of the Judiciary, a "State of the Judiciary" speech by the Chief

Justice to the Legislature has been instituted as well as more open appearances before committees of the Legislature.

Local Government

One of the most significant trends in Maine local government since 1940 has been that of a growing sense of professionalism. This can be measured by the number of city and town managers, which has dramatically increased from 11 in 1932 to 200 in 1982.[11] Related to this growth has been the increasing number of women in local administration (from 11 in 1970 to approximately 40 in 1982), and the growing number of administrative assistants (22) and assistant managers (12).

Support for professional growth and development was spawned by the creation of the Maine Municipal Association in 1947, the undergraduate Public Management degree program at the University of Maine at Orono (UMO) in 1945, the graduate Masters in Public Administration degree program at the University of Maine at Orono and Augusta, in 1968, the Bureau of Public Administration at UMO in 1965, and the Maine Chapter of the American Society for Public Administration in 1968. In addition, this trend toward professionalism has led to some specialization in the related local government occupational organizations such as the Maine Chapter of the American Public Works Association, the Maine Municipal Tax Collectors and Treasurers Association, and the Maine Town and City Management Association.

A second major trend has been the changing structural patterns in Maine municipal government. The 1939 Town Manager Enabling Act allowed small Maine towns to hire a town manager and charge this individual with a number of administrative responsibilities that were previously carried out by the board of selectmen. Some towns and cities went a step further and abolished the town meeting altogether and established the council-manager plan of government. This appears to be a moderate trend (36), since most Maine municipalities still retain the town meeting (456). By 1969, the Maine Legislature had approved a locally initiated home-rule process, which made it easier for citizens to draft their own "local constitution", the city charter. Thus, formal charters can also be found in those communities where they were adopted by either Legislative Private and Special Acts prior to 1970, or through the Home Rule provisions thereafter.

There has been a major expansion of local interests beyond the traditional "housekeeping" functions of local government (public works, police and fire services) to include complex relations with State and Federal governments. This interface with Augusta and Washington has meant increased sources of revenue through grants and intergovernmental transfers but also greater regulation of local activities. Often the end results have been protracted conflict between local, state, and federal officials. In Maine the recent

battlegrounds in solid waste management, shoreland zoning, school funding (the infamous L.D. 1994), and assessment reforms at the local-state level illustrate these changes, while Community Development/UDAG funding, Community Action Agency funding, public housing projects, urban renewal, and social service delivery are all examples of the complex local-federal relationship.

Numerous planning tools have been made available to municipalities in an effort to control the use of land within their boundaries. Local zoning ordinance and sub-division ordinances, site plan review processes, and plumbing, electrical, and building codes began to be found in some of the more developed communities, although many of these have been resisted by many towns. Another major trend that has greatly affected Maine local government at the municipal and public school levels has been the adoption of collective bargaining legislation for all municipal employees, including teachers.

In an era of scarce local revenues, a greater effort must be made to reduce the many inequities of our current local revenue system. It relies heavily on the general property tax and intergovernmental transfers of funds from the state and federal governments. An effort should be made to utilize more miscellaneous revenue sources such as user changes.[12] Heavy reliance on the general property tax to offset reductions in key federal social programs will tend to increase inequities between rich and poor communities.

Another area that merits greater attention in the future is the need for greater coordination between the school system and the municipal governments. The luxury of two almost local governments—the town government and the school government—is a definite liability to future efficient and effective local management. A growing practice of changing the municipal budget process to parallel the school budget fiscal year illustrates the concern by many councils for more financial control of school expenditures.

Probably, Maine local governments will use more frequently their right to enter into contracts with other towns and cities as well as with other levels of government and with the private sector. Under the Inter-Local Cooperation Act of 1963, municipalities were allowed to contract for the joint handling of obligations, but relatively few cases have been reported. Because of economies of scale, many small communities may be forced to cooperate with other towns and cities, planning commissions, and county governments.[13] In some cases these arrangements have already evolved from an informal mutual aid pact (especially in police and fire services) to a formal contract between two or more local governments.

Finally, the use and control of information is often viewed as a powerful resource. In this regard the future direction of computer applications and management information systems in local government demand our attention. Recent studies reported by the Maine Municipal Association have revealed that small computers and micro-computers are finding their way into Maine's

large and medium-sized communities. Although at present relatively few communities use computers for basic services (accounts receivable/payable, sewer and tax billings, general ledger, assessment data, and voter registration), the future outlook is that of expanding influence in such areas as records management, and collections and analysis of individual and municipal data by sub-state regional and state government personnel.

Regional and County Government

Numerous attempts have been made to bring about structural reorganization of the State of Maine into regional areas. The effort to achieve governmental and administrative cohesion at the substate level has been prompted by the proliferation of various governmental and quasi-governmental agencies whose activities overlap, conflict, and obscure accountability to the public. The problem of establishing meaningful substate government has been complicated by the problem of the county. Counties have long been weak governmental units in comparison with their counterparts in other states. A 1952 study found that Maine counties were "top heavy with elected officials and clerks," and had seen "little structural change" since before the Civil War.[14] During the past 30 years, numerous proposals have been made to strengthen or to abolish county governments.

Some examples of these proposals may be briefly noted. One idea has been to reduce the number of counties from 16 to 8 with boundaries conforming to the State's Planning and Development Districts. Another has been to restructure county government to allow for a county executive elected at large and a 7 member council also elected at large. A variation of that idea has been to have an appointed county administrator to oversee functions performed by the county and to appoint subordinate executive officials. Among still other government observers, a long-standing goal has been to abolish county government and to reassign its activities to State and local units of government.

One recent effort to establish more effective substate regionalism, the Task Force on Regional and District Organizations, appointed by Governor James Longley in 1978, recommended the establishment of regional service areas with centers which would arrange and deliver the services of State agencies and field offices, and structural reorganization of existing county governments.[15]

The first recommendation has not been carried out. The second recommendation has been supported by the 109th Legislature and An Act to Provide for County Self-Government. To date only one county, Cumberland, acted favorably to take advantage of the law.

However, in the June referendum vote, the voters of Cumberland County decisively rejected the proposed county charter.

The opposition to the proposed charter was expressed by one of the Cumberland County Commissioners as well as other opponents. The charter was attacked on structural and ideological grounds. To those in opposition to its implementation, the proposed charter created an unnecessary "layer of bureaucracy" which would increase the cost of operating county government, and give to the county government powers which they believed would detract from the powers and independence currently held by the towns and cities of the county. Opponents of the charter considered the proposed 14 member Finance Committee of municipal officials to be unrepresentative. Opponents of the proposed charter further regarded the manager-council form of government, in which the county manager possessed the power to appoint and remove department heads, to be anathema to the separation of powers principle. The failure of the charter commission to anticipate and counter these arguments resulted in the defeat of the proposed county charter for Cumberland County.

While reform of county government may not take place early, it should be noted that the 1978 report suggested certain other reforms. One was that state planning and development districts be made coterminous with county boundaries or with groups of counties. Another recommendation was that counties' boundaries serve as a basis for regional offices of state agencies. The report indicated that additional state functions could be decentralized to regional offices, and that wherever possible different state agencies use the same regional headquarters to deliver their services.[16] Much remains to be done.

C. PUBLIC POLICIES IN MAINE

Equal Opportunity and Affirmative Action in Employment

In 1968, the Task Force on Human Rights submitted to Governor Kenneth Curtis its report on the problems and needs of Native Americans, Blacks, and the poor in Maine. That Task Force, which was composed of 21 men and 4 women, submitted also recommendations for developments and changes in pubic policy that affected the poor and minority groups. The work of the Task Force was the first serious effort in Maine to identify in a comprehensive way the problem and needs of both minorities and the poor. When viewed from a 1982 perspective, the report of the Task Force in 1968 seems important, but still inadequate and discriminatory: it failed to recognize or address sex discrimination at all. The report also proposed a Human Rights Act which was drafted to forbid discrimination on the basis of race, color, religion, age, and national origin; but discrimination on the basis of sex and discrimination on the basis of handicap were not addressed in that draft.

When the Human Rights Act as actually enacted in 1971 as Title V of the Maine Revised Statutes, it did forbid discrimination on the basis of sex, as well as on the basis of race, color, religion, and national origin. Between 1968 and 1971, national publicity, as well as Federal executive orders, had begun to focus public, political, and legal attention upon the pervasive and serious social and economic problem of discrimination on the basis of race, color, national origin, and gender.

Also in 1971, spurred on by a charge of sex discrimination that had been filed against one campus of the University of Maine system, administrators and faculty throughout the state University system began serious efforts to identify and eliminate discrimination against women and minority employees. In 1974, the U.S. Office for Civil Rights formally accepted the affirmative action plan of the University of Maine at Orono (UMO). Maine can be proud that UMO was the first land grant University in New England to have its affirmative action plan officially approved by the Office of Civil Rights.

Executive Orders by Governor Curtis in 1974 and by Governor Longley in 1975 applied a Code of Fair Practices and Affirmative Action to state government and also to agencies that dealt with the state. Later in 1975, the Code of Fair Practices and Affirmative Action was enacted as a statute by the legislature and signed by the Governor.

A number of events at the federal level profoundly influenced Maine's acceptance of and compliance with equal opportunity and affirmative action principles. The enactment, public discussion, and enforcement of federal equal opportunity laws gradually began to change the behavior of men as well as women, of majority-group members and minority-group members. The most important catalysts for equal opportunity and affirmative action were the 1972 amendments to the Equal Pay Act and to Title VII of the Civil Rights Act, Title IX of the Education Amendments of 1972, and the Federal affirmative action Executive Orders. The private sector, as well as the public sector, began to take equal opportunity for minorities and women more seriously. This was particularly so after the Equal Employment Opportunity Commission (EEOC), the Department of Labor, and the Office for Federal Contract Compliance demonstrated their enforcement powers.

Federal action in the form of the Rehabilitation Act of 1973 served as an impetus within Maine for equal opportunity and affirmative action efforts on behalf of still another affected class: the handicapped. The Federal Age Discrimination Act of 1975 stimulated action at the state level that was even more progressive than federal activity regarding age-mandatory retirement.

The focus in the 1960's—with the Equal Pay Act and the Civil Rights Act—was, generally, upon the impact of discrimination on individuals. Civil Rights and women's rights activists, as well as employers, tended to focus attention upon how qualified individuals suffered because of discrimination

and how they could both benefit and contribute if afforded equal opportunity. In the late 1960's and throughout much of the 1970's, affirmative action orders and also monitoring agencies, including the EEOC and the Office for Federal Contract Compliance, tended to focus attention upon situations where women and minorities were unrepresented or underrepresented. Although there was discussion of systemic problems, the remedies suggested tended to benefit isolated individuals rather than systems or institutions or large classifications of poeple. In the 1980's, however, the emphasis is on discrimination as systemic, as negatively affecting whole classes of people, and as integral to the values and procedures and policies of entire systems and institutions. The demand for "equal pay for work of comparable value" is not an issue just for self-declared feminists. It is being espoused by large numbers of clerical employees, laboratory technicians, women in custodial positions, and nurses, as well as by feminists and union and other pro-employee advocates.

According to analysts Wendy Kahn and Joy Grune[17], focusing on valuing and rewarding women in female-dominated occupations, "rather than on moving women into nontraditional male occupations, is a strategy which does not involve sex-role change". For that reason, the movement for equal pay for work of comparable value may be more acceptable to the majority of women and men than affirmative action, even though associations of managers and economists may deplore and try to resist the sweeping economic impact of an "equal pay for comparable work" law or policy. On the other hand, this contemporary movement for pay equity offers, according to Kahn and Grune, "a collective, not individual, solution—the economic empowerment of millions of women in traditional women's jobs. Surely this represents fundamental . . . change."[18]

In spite of the ostensibly complete integration of women and minorities into the factories during World War II, equal employment opportunity was considered a radical measure, acceptable only as a temporary wartime necessity. Equal employment opportunity principles and practices that seemed extraordinary in 1942 now seem moderate-to-conservative in 1982. It seems, therefore, not at all unreasonable to anticipate that "equal pay for work of comparable worth" may be a moderate or conservative position 40 years in the future. It is probable that legislation at the state and federal levels will transform the principle of "equal pay for work of comparable worth" into public policy much sooner than that.[19]

Civil Rights and Equal Opportunity legislation in the 1960's and 1970's influenced broad-based social and attitudinal changes. The effort to promote and ensure equal pay for work of comparable value is within the philosophical and social tradition of the Rehabilitation Act of 1973, as amended, and the Age of Discrimination Act of 1975. All of these seem to reflect broad-

based support not merely for equity, but also for recognition of the value of the contributions and of the potential of whole classes of human beings.

Collective Bargaining in the Public Sector

Maine, like other states, has been subject to the impact of powerful social inventions which have changed the nature of the political and administrative process. Collective bargaining is one of those inventions. Prior to 1959, formal systems of collective bargaining for public employees did not exist in the states. Between 1960 and 1970 there was a proliferation of state laws sanctioning public sector bargaining and a corresponding growth in the membership of unions representing public employees. Maine had enacted a collective bargaining law as early as 1909, with the creation of the State Board of Arbitration and Conciliation for the purpose of settling disputes, strikes, and lockouts, but that policy was directed at the private sector.

The state formally entered the field of public sector collective bargaining in 1965 when the Fire Fighters Arbitration Law was passed by the 102nd Legislature. That law authorized the designation of bargaining agents and the conduct of collective bargaining between municipal fire fighters and public employers. The state gained experience with a formal system of public sector collective bargaining which was useful in the development of more comprehensive legislation at a later date. In 1969, the Municipal Public Employees Labor Relations Law was passed. That law broadened the scope of bargaining between municipalities and public employees. It also mandated collective bargaining for the majority of municipal employees. It included representation procedures and the right to bargain collectively for wages, hours and working conditions. The law also provided grievance arbitration for employees of the various municipal units.

During the following four years, many cases were taken before the Public Employees Labor Relations Board (now the Maine Labor Relations Board) and the Maine Courts for a definition of the rights and obligations of the parties. That experience provided and clarified many of the guidelines for public sector collective bargaining in Maine. It also established the necessity for comprehensive legislation needed to cover most public sector employees. The 106th Legislature passed "An Act Extending Bargaining Rights to State Employees" in 1974. That legislation expanded the policy previously covering only municipal and school district employees to include most state employees.

Since that time, the same bargaining rights and obligations have been extended by legislation to most state university and county employees. We have witnessed the development of a comprehensive public sector labor relations system in the State of Maine. The law originally provided to meet the specific needs of fire fighters and their municipal employers has been developed on an incremental basis to meet the changing needs of the 1980's. Maine now has a

system designed to administer the collective bargaining laws which cover most municipal, county, state and state university employees. The Maine Labor Relations Board serves as an interpreter of the labor relations statutes. Those statutes deal with the determination of bargaining units, representation of bargaining units, representation elections, the collective bargaining process and impasse resolution.

The future of public sector collective bargaining in Maine will certainly not continue to follow the course taken for the past decade. Development of the body of law in this area should slow or even stop. There is no urgent need for making more policy in this area. Of course there will be a continuing struggle between management and labor as they still grapple with the relatively new reality of contracted rights and obligations. It is hoped that the struggle will change to cooperation when the relationship develops and the necessity for working together is understood.

Public sector collective bargaining could very well have a positive effect on management practices. It is expected that public managers may discover that many professional employees have joined unions only because management has not met the real needs of workers. Those needs are not all measured in dollars. As labor-management communications mechanisms are developed, problems causing friction may be reduced or even eliminated. The results are difficult to predict but could include a merit system based on real merit and a favorable image for the state bureaucracy. Improved productivity, higher morale and better service should be among the results of our public sector labor relations policy.

Public sector collective bargaining is a social invention established because it was needed. The Maine Legislature has succeeded in creating a policy and an agency for enforcing the rights and obligations of both public employees and their public employers. That system can benefit the citizens of Maine if it is allowed to develop in an environment of understanding and cooperation.

Energy

During the 1940's, Maine's energy mix was relatively similar to that of the United States as a whole. The principal energy resources used in the States during this period were coal, oil, gasoline, and hydropower. During the Second World War, New England experienced a heating oil shortage, and coal played an important role in meeting residential energy consumption.

Subsequently, coal began to decline in use in Maine because of transportation costs, environmental concerns and the cost of the product relative to oil, which remained relatively inexpensive. Petroleum entered a period of unbridled growth and became the largest single energy source. While hydro remained an important energy source, it came to serve a declining share of total demand in the State. The only new energy source to appear prior to the

energy crisis of 1973–74 was nuclear power, which began to be generated in 1972.

In Maine, as elsewhere, the Arab oil embargo of 1973–74 marked a turning point in energy utilization, and awakened government to the need to develop energy policies. Since 1973, prices for all types of energy have increased relatively rapidly. Most significantly, the prices of petroleum products have skyrocketed. These price increases were the most significant single force in bringing about energy conservation. In fact, price increases served to counteract other forces, such as population growth and economic development which would normally have increased demand. Consequently, Maine people began to use energy more efficiently.

In all sectors, except electricity production, the use of energy actually declined between 1972 and 1980. The pattern was substantial and remarkably consistent across sectors:

Residential—down 14 per cent

Commercial/Institutional/Agricultural—down 24 per cent

Industrial—down 14 per cent

Transportation—down 13 per cent

Consumption of gasoline in the transportation sector did not respond as rapidly as did energy consumption in other areas, and only began a steady downward trend after the gasoline shortages of 1978–79.

As for electricity, it reached its peak growth in 1976 when demand rose by 8.7 per cent. Just a few years later, in 1980, it was increasing at a rate of only 1 per cent a year.

By 1980, Maine's energy mix differed substantially from that of the country as a whole. Maine was far more reliant on petroleum than was the country as a whole. Yet, petroleum's share of total energy consumed in the state had fallen from 83 per cent in 1972 to 65 per cent in 1980. Maine also used far more wood in meeting its energy needs than did the country as a whole. By contrast, Maine was far less reliant upon coal and natural gas than other states.

The development in the use of wood was particularly significant. In 1980, wood represented 8.5 per cent of the total consumption of energy in Maine. Before the 1973–74 energy crisis, wood had fallen into disuse for residential purposes and was only being used in a most limited way for industrial purposes. After the oil embargo, concerns about security of supply prompted Mainers to turn to their own indigenous energy source.

Two developments have characterized recent energy consumption patterns and the prospects for the future. First, energy conservation—the use of available energy more efficiently—represents the State's single most important energy resource. Total energy demand between between 1980 and 2000 is expected to rise only slightly, thanks to energy conservation efforts. This relatively stable demand will take place despite expected increases in

economic activity and population. The average annual projected changes in energy consumption by sector are expected to be:

Residential—up 1.1 per cent
Commercial/Institutional/Agricultural—down 0.2 per cent
Industrial—up 0.1 per cent
Transportation—down 1.1 per cent
Electricity—up 2.4 per cent
Overall energy demand—up 0.6 per cent

Secondly, Maine is expected to rely increasingly upon transitional energy resources such as nuclear, natural gas, coal, imported power and peat, which are generally non-renewable and may be subject to constraints on their long-term utilization. It is possible that some resources now considered to be transitional will find a place in Maine's long-term energy future.

Electricity and natural gas imports from Canada may contribute to significant shifts in energy supply patterns over the next two decades. Hydro Quebec will probably have firm capacity to offer because demand growth projections in that province have exceeded actual load growth. Because of its significant investment in the James Bay Hydroelectric development, Quebec will be seeking export markets. In addition, significant levels of imports from New Brunswick can be expected to continue. In both cases these imports must be regarded as transitional because of ultimate need in the two provinces. In the longer term, imports from hydroelectric developments in Labrador are possible, provided political and technical problems are overcome in Canada. Such imports could be of relatively long duration. The natural gas find at Sable Island, off Nova Scotia, offers the prospect of a significant long term import of natural gas which could increase its share of the Maine energy market from less than 1 per cent to something on the order of 3–6 per cent.

Finally, ultimate resources, such as hydro and tidal, wood, solar, alcohol fuels, wind, and solid waste, are renewable and indigenous and are expected in the more distant future to play a significant role in meeting Maine's energy needs. In the period between 1980 and 2000, transitional and ultimate resources are expected to grow in use at an average annual rate of 4.3 per cent while petroleum is expected to decline at an average annual rate of 2.5 per cent. These transitional and ultimate resources—coal, natural gas, wood, solar and industrial hydro—are expected to represent 28 per cent of total energy demands in the year 2000 as compared with 13 per cent in 1980.

On the basis of existing energy resources and those likely to become available, there is no reasonable prospect that Maine can be completely energy self-sufficient. However, the type and amount of energy resources available to the state will continue to develop in the future. As a result, it may be possible to re-evaluate consumption projections as resource development takes place.

Environmental Protection*

Since 1940, Maine has enacted environmental measures which establish the state in the forefront of a growing national concern over the world's finite capacity to absorb human and industrial waste. Through a gradual concentration of regulatory authority in the Department of Environmental Protection and the Land Use Regulatory Commission, and by enactment of innovative controls and review procedures, Maine state government has authorized programs dealing with the environmental issues of water, land and air pollution, and has allocated complex responsibilities to state, regional, municipal, and private agencies. These issues involve the diverse interests of conservationists, industrial and commercial activities, land owners, residential and vacation home owners, and public officials at all levels. Resolution of inherent conflicts in the many issues has tested the political system's ability to balance conflicting interests and views, and finally, to change public policy.

Environmental awareness in Maine had its beginning in the early 1940's with the creation of the Sanitary Water Board. This body subsequently became the Water Improvement Commission, and over the next 10 years its statutory powers and funding level gradually increased. By the mid-fifties a system of classification of state waters was complete, and Maine was in a position to participate in the initial stages of federal water pollution control efforts. What has come to be called the "environmental movement" had not yet really begun, but water pollution in Maine and throughout the nation was widely recognized as an urgent problem. The Androscoggin was labeled one of the 10 most polluted rivers in the nation, and few were prepared to debate the issue. Momentum to resolve environmental problems, however, was slow to build.

In Maine, the next step forward seems to have been triggered by a series of events in the mid-sixties: Dickey-Lincoln Dam was proposed and met with almost immediate opposition; Bowdoin College sponsored a stark photographic exhibition and conference, "As Maine Goes", which depicted a series of environmental harms demanding attention; the Natural Resources Council galvanized itself into an effective statewide environmental organization; several newspapers featured environmental reports; and finally, a spate of environmental legislation was presented to Congress, to the State Legislature, and to the public as a whole. Equally important to this increased legislative effort was the election in 1966 of a new executive, Governor Kenneth Curtis, and several state legislators of both parties, who were very sensitive to environmental concerns.

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*The author thanks Orlando Delogu of the University of Maine School of Law, a former member of the Board of Environmental Protection, for his insights concerning the status of national and state environmental regulation, and Paul McCann of Great Northern Paper for his historical perspective on the involvement of private industries.

The late sixties and early seventies were periods of bold legislation and of vigorous application of these newly enacted laws. In rapid order, legislation was adopted which mandated local zoning, strengthened local land use control powers, and created the Department of Environmental Protection (DEP). Also enacted was legislation dealing with wetlands, air pollution, solid wastes, land use in the unorganized territories, pesticide application, the use of shoreland areas, the siting of major facilities, and oil handling and spill control. These laws and a series of appointments to the Board of the DEP freed that agency, in the eyes of many, from criticism that it was a "captive" of the interests it was charged with regulating.

With but a handful of exceptions the new laws and procedures were sustained by Maine courts. Federal and state dollars of unparalleled proportion were committed to addressing such problems as water pollution, air pollution, and land use planning. Public and business support for these efforts, while not universal, was widespread. More than 50 municipal waste water treatment plants were built with assistance from the federal government and state bond issues. Large industries, such as pulp and paper, food processing and electric utilities spent enormous sums in corporate funds for pollution abatement. Nearly 100 public acquisitions of land and private conservation easements protected many miles of river, land, and salt water frontage.

Some of the anti-pollution laws contained timetables for cleanup. In the mid-1970's, these were challenged, more with respect to timing than to substance. Opponents, fearing the loss of Maine jobs, bargained for time and lobbied for weaker enforcement of the time limits. Some of their spokesmen claimed that "environmental extremism" had made the state's business climate unattractive. But there also developed a great deal of cooperation between industry and government— teamwork which eventually led to Maine's emergence as a pacesetter in cleaning up its waterways.

Supporters included not only hundreds of individuals but private groups, such as the National Resources Council and the Audubon Society, which played a major role in heated public debate over the Land Use Regulation Commission's activities and such unresolved economic-growth issues as Dickey-Lincoln, a proposed oil refinery for Eastport, and a private corporation's attempt to develop Bigelow Mountain.

Due to other pressing problems of recent years, such as energy shortages, a recession, and less federal funding, environmental issues seemed to have been shoved onto the back burner, despite such new hazards as dirtier air from burning coal and wood, acid rain, hazardous wastes, and overdevelopment of prime agricultural, wilderness, river and beach lands.

Now, the environmental debate centers more on enforcing existing laws than enacting new ones. In the late seventies and early eighties, there seemed to be less political, and maybe less public, support of environmentalists and their goals, partly because a basic level of protection had already been achieved.

This was due partly to declining federal funding and the economic downturn, which was an effect of the Arab oil embargo of the mid-1970's.

Although few would say that Maine has abandoned its commitment, talk about the environment, with the exception of energy issues, nuclear waste, and acid rain has abated. An adequate infusion of state money to replace the missing federal pollution abatement grants is questionable. Many people believe present controls are sufficient to maintain clean waters. There probably will not be much change, some environmentalists fear, unless there is a fundamental crisis, such as a real Three Mile Island, genuine and widespread public health problems, or further scarcities of basic resources.

In recent years, some champions of environmentalism have adopted, with mixed results, a new tactic— bringing a single issue to public attention by state or local petitions or court challenges. Examples include the successful Bigelow Mountain referendum and the "bottle bill", that has taken much of the litter from the roads, and the unsuccessful attempts in 1980 and 1982 to shut down the maine Yankee nuclear power plant. Each of these referenda was opposed by groups fearing adverse economic impacts.

To summarize, environmentalists acknowledge that the movement has lost momentum, although new problems need to be solved. There is doubt whether they can be promptly addressed in Washington or Augusta as long as the attention of the public and elected officials is focused on inflation, unemployment and revenue shortages.

Business Regulation

During most of its history, the State of Maine has provided for only limited regulation of business activity in the interest of consumer protection. In general, the operating philosophy appears to have been that consumers could look out for their own interests in the marketplace. During the 1970's, a marked change took place in regulation. It became evident that the complexity of the modern academic marketplace was making it increasingly difficult for the individual consumer to protect his or her own interest. Business enterprises were growing in size. At the same time, consumer activists were revealing corporate practices which were deemed to be harmful to the consumer's interest.

In 1974, the State Banking Code underwent a complete revision, making it one of the most advanced in the United States. As a part of this revision, increased attention was paid to consumer credit protection and a new agency was created to operate in this area. This agency, which became the Bureau of Consumer Credit Protection, assumed responsibility for the administration of the Federal Truth-In-Lending Law in the State of Maine and of the Maine Consumer Credit Code. As a result, it became one of the leading agencies of its type in the country. At the same time, insurance regulation was also becoming increasingly concerned with the rights of the consumer.

With the energy crisis of 1973-74, Maine's utilities were no longer in a position to offer rate decreases, and were forced increasingly to deal with a complex economic outlook. As a result, the Public Utilities Commission was similarly obliged to take on more responsibilities. The members of the Commission were made full-time State officials and their staff was substantially increased. The Legislature provided the PUC with increased discretionary authority to regulate the utilities, especially the electric power companies, in order to review corporate decisions which were most likely to have an impact on utility rates.

Because of growing public concern that utilities regulation was not fully representative of consumer interests, increasing pressure developed for more active consumer advocacy in this area. Consumer groups, generally funded by Federal grants, began increasingly to appear as parties before the Public Utilities Commission. An unsuccessful effort was launched in 1981 to provide for the direct election of members of the Public Utilities Commission. While this effort failed at public referendum, the Legislature agreed to a proposal by the Governor and created a Public Advocate whose job is to represent "the using and consuming public" as a countervailing force to the utilities in matters coming before the Public Utilities Commission.

In some areas, there was a recognition that more than business regulation was required. A consumer fraud division was created within the Department of the Attorney General in 1970. This agency receives consumer complaints and, under the provision of the Unfair Trade Practices Act, the division attorney may advocate the consumer's position. Of course, the individual retains the right to act in his or her own behalf as well.

The immediate future appears to reflect a concern that excessive regulation may stifle economic activity and that competition will best serve the consumer interest. As a ressult, it is expected that regulatory responsibilities, where competition existss, are not likely to be strengthened in the coming years. By contrast, considerable interest remains in protecting the consumer interest in those areas where competition does not exist, particularly with respect to public utilities.. In addition, the Attorney General can be expected to continue vigorous representation of consumer's where particularly widespread violations of the consumer interest appear..

D. ENDNOTES

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CHAPTER V
AGENDA FOR THE EIGHTIES
Introduction
Economic Issues
Social Issues
The Role of Government and Political Parties

A. INTRODUCTION

This chapter summarizes key trends and factors identified by the writers of chapters III, IIII and IV, and suggests some guidelines for policy makers. Chapters VI and VIII project these trends and factors for the remainder of the 1980's through use of the Maine Economic Policy Analysis Model.

Maine has undergone many changes since 1940, but they have not turned an essentially rural state into an urban one, a resource-based economy into a capital-intensive manufacturing one, or concern for jobs and income into a "no-growth" philosophy. The passage of forty-odd years has, however, modified and softened, if not reversed, these basic characteristics of Maine. Outmigration has been replaced by inmigration and population retention. Urban areas have grown in number but not in population concentration. The state has experienced substantial manufacturing development, but a dividing line with natural resource-based industry remains. Although jobs and income have improved, in some cases substantially, poverty remains a real problem for many people. Concern for the natural environment has substantially modified the 1940s' emphasis on economic development at any cost.

Maine cannot escape the forces at work in the national economy and society, though their impact here may lag behind other states. Our ties through technological developments in communications and transportation are being steadily strengthened. Thus, looking ahead into the 1980's, national forces must first be considered; for the most part they appear favorable to Maine.

First, inmigration from the east coast megalopolis will continue. The quality of life in Maine with its large area, physical attractiveness, and low population density, will continue to exert a strong appeal for young people, most in their prime working years, and many with young families. While the lack of job opportunities in some areas of Maine may encourage sporadic outmigration, the inmigration trend of the past decade, resulting in a net addition to the population, will in all probability continue. The demand for land along the Maine coast will continue to move steadily eastward, increasing the land's acquisition cost and the cost of providing newcomers with public services. Many inmigrants will therefore seek less expensive inland locations within reach of urban centers and I-95, that still offer space and self-fulfillment possibilities sought earlier by the "back-to-the-land" movement. Cities like Portland and Bangor, which lost population in the 1970's, may gradually regain it as they develop their regional retail centers, cultural attractions, and urban amenities.

The rising cost of petroleum-based energy will certainly continue, but Maine's wood, water and solar resources offer alternatives that have already demonstrated their potential to offset the cost of imported energy. Promoting energy conservation and alternatives to petroleum must be a priority in any agenda for the 1980's.

The prospects for continued inflation in the 1980's seem strong. But again, some Maine people can soften the impact by raising a substantial part of their own food. At the same time, the national and international demand for protein augurs wells for the revival of Maine commercial agriculture and fisheries.

Realizing these potentials will not be easy, nor without major shortfalls, but the fact that they exist gives added reason to set forth an agenda for Maine for the 1980's.

B. ECONOMIC ISSUES

The continuing debate over the emphasis on economic development versus environmental protection will continue throughout the 1980's, but the predictably low growth rate of the Gross National Product, (GNP) which in the last analysis determines the rate of Maine's economic growth, will probably tip the scales toward those who see growth as the overriding issue for the decade.

If economic development is a key agenda item for the 1980's, then a number of allied issues come into focus. A leading agenda item must be a review of the incentives for private investment in Maine and their adequacy to stimulate desirable development. Business regulation and taxation should be considered, at least in part, from this standpoint. At the same time foreign and out-of-state markets for Maine products should be kept under review.

The desirability of private investment and production for national and international markets is not without costs that the state must carefully weigh. An item of continuing and probably increasing importance is the degree to which out-of-state or foreign ownership of Maine land, forests, and corporations should be encouraged.

Maine's natural resource industries may not offer significant employment growth possibilities in the 1980's, but to remain competitive they must increase their productivity on a sustained yield basis. This concern applies to forest, fisheries, and agriculture, whose long-term welfare must be encouraged by State policies.

Tourism, a major Maine industry, will continue to be important in the 1980's, but it will pose continuing problems in protection of the natural beauty that tourists come here to enjoy. Faced with economic imperatives, public efforts to promote, protect, and conserve these resources must be supplemented by private ones.

Service industries, the focus of most employment growth in the past decade, will generally remain strong in the 1980's. However, the rate of expansion will perhaps be slower than in the 1970's, unless unanticipated changes develop in the structure of the Maine economy. In developing economic strategies for the state, the importance of seasonal, relatively low-skilled, employment in tourist and food processing areas must not be overlooked.

Perhaps the area of most predictable growth in employment will be in high-technology manufacturing, which is already overtaking traditional employment leaders in the southern part of the state. In the search for quality labor and a congenial business environment, high technology firms will gradually move up I-95 during the 1980's, locating major facilities from Portland to Bangor and perhaps beyond. State and local policies should encourage this type of non-polluting industry.

On the other hand, traditional industries like shoe manufacturing will continue to have a major role in some communities. Public policies must not overlook their important contribution. Similarly, efforts must be made to assist and promote small business firms, which have an unusually important place in the state's economy.

Among the most predictable problems of the 1980's facing the commercial and industrial sector will be those related to energy costs. Although Maine industry has already done a good job of energy conservation and conversion, much remains to be done. Public policy must point the way, making the most of indigenous resources and using public resources where appropriate.

De-regulation of transportation at the national level has brought problems as well as benefits. It seems likely that trunk airline carriers may assign their Maine routes to affiliated commuter airlines, reducing the service that

was so important in the last decade in overcoming Maine's relative geographic disadvantages. A priority agenda item for the 1980's should be the retention of first-class air service, supplemented by feeder airlines.

The consolidation and revival of New England railroads, already underway, is likely to benefit Maine in the years ahead. Given the cost advantages of bulk water movements and the long, indented coastline of Maine, a revival of coastal shipping by the end of the 1980's should be an agenda item, just as provision of docks and fish-processing plants has already been. The potential for deep-sea shipping from Maine docks should be vigorously pursued.

Although formal research and development activity has not thus far played a significant economic role in Maine, there are some indications that its importance will increase in this decade. As in the case of the Route 128 development around Boston, spawned by research at major universities, Maine will profit from the work going on at its university campuses, some of which is already unquestionably world-class. Its commercial application on a small scale has already begun, and it will continue. To the extent that "critical mass" of research personnel and facilities results, privately funded research and development efforts can also be expected to flourish. Both are, and should be, encouraged by state and federal funding.

Likewise, encouragement of entrepreneurship at all levels by creating and maintaining a favorable business climate, providing educational opportunities and financial aid, and by avoiding excessive regulation, should have a prominent place on the State's 1980 agenda.

In the past, Maine business and industry have suffered from a dearth of professional management skills. Significant progress was made in the 1970's in overcoming that problem both by formal and on-campus instruction in business administration and by the availability of continuing education and other *ad hoc* courses, supplemented by the inmigration of well-trained professional managers. While there is still a shortage of qualified middle managers, this should disappear during the decade ahead as these courses are expanded. Increasingly, they must focus on quantitative techniques of data manipulation and decision making because before 1990 the computer will be to the calculator as the word processor already is to the typewriter.

A more serious problem may be a shortage of skilled workers. The skilled Maine work force is approaching retirement age, and many are already too old to be trained to fill the need for engineers, machinists, and technicians that Maine industry will have as the decade progresses. Educational facilities already exist to meet this training need; but the public sector commitment must be expanded to meet the need for skilled people for both initial entry to the labor market as well as for re-training as technology and product demand change. The private sector should be expected to contribute significantly to this effort, with expanded collaboration with the public sector providing technical training. As a result, more Maine young people possessing the requisite

training and skills will have a choice of remaining here instead of being forced to leave the state to find appropriate employment.

Women have always played an important role in Maine's economic life. That role will continue to be significant in the 1980's, with an increasing range of professional and managerial opportunities becoming available. An agenda for the 1980's must call for increasing women's access to education and jobs, and for corresponding equitable compensation.

A perennial complaint about the Maine economy has been an alleged lack of capital for new ventures, or an inadequate amount of major business expansions. A variety of efforts, public and private, invalidated much of this criticism in the 1970's, and foreseeable developments for the 1980's will further reduce its relevance. Interstate banking will place major Boston banks in key Maine locations before the decade is out, and there will be continued bank mergers as commercial banks seek to realize economies of scale and to mobilize capital to Maine's growth needs. Much of the same will occur with savings institutions, which will either disappear or merge and take on most of the characteristics of their commercial competitors. Even-handed bank regulation to protect Maine bank customers and the State's banking institutions in this confusing time of transition will be essential.

Assisting and encouraging industry already located in the State is at least as important as attracting new firms. Important functions of state government are to evaluate the changing economic scene, to use public resources to foster key areas of economic growth, and to recognize the importance of public policies in creating an environment favorable to private investment. Chief among these in the 1980's must be public investment in capital and human resources on which both private and public economies depend. There was consensus at the two Conferences that the state needs to develop a broad economic development philosophy, to evaluate and coordinate the many competing activities in this area, and to stress the importance of public-private cooperation.

In one form or another, the essays place a great deal of emphasis on economic development. Promoting economic development is not a question for conference historians and participants. The issue is rather, what kind of economic development should be promoted? And the question is not whether or not government and the political process should be involved in economic development, but how. Changing lifestyles, high technology versus natural resource industries, concern with shortages, small industries, and the role of Maine's comparative advantage by product and size are on Maine's future agenda.

C. SOCIAL ISSUES

Housing, health care, education, and cultural services are high on the agenda of social issues in Maine for the 1980's.

Housing has become a major problem for many Maine families. High interest rates and low incomes have been a barrier to the construction of single-family, freestanding residences. In recent years, the average Maine family, if it could afford any housing other than rental accommodations, has typically had to settle for a mobile home. Their sales in the 1970's were the equivalent of single-family conventional homes in the 1940's.

One short-run answer to the housing problem appears to lie in innovative public financing, with the State taking the initiative as it already has done for first-time buyers. This program may have to be expanded to accommodate a wider range of home buyers and those who wish to expand their current housing. Subsidized rental housing, particularly for low income and elderly citizens, has met a real need and should continue to do so. However, the State may have to play a financial role previously performed by the federal government and therefore must evaluate its implications most carefully.

There is a need for energy-efficient building materials and more housing units in proximity to workplaces and stores. By the end of the decade, technological progress in building materials and techniques may reduce the cost of new construction enough to bring it within the reach of a greater number of Maine home buyers. However, it still seems safe to predict that the prospects for the single-family, freestanding house are limited as far as new construction is concerned.

Formal education is becoming a life-long process, no longer limited to only the preparation of young people for a role in society. Therefore it is closely related to economic development and merits continuing evaluation and financial support. Despite the reduction in the number of school-age children at the start of this decade, there is some evidence that this trend will be reversed by its end. A marginal increase in the birth rate, coupled with the inmigration of young families, promises to create an increased demand for public schools by 1990. As noted earlier, the need for formal training as preparation for work in the 1990's and beyond will increase the demand for post-secondary education. The high cost of private institutions, despite their best efforts to contain the escalation, does not appear likely to be reversed. To retain them, the state may have to come to their aid. In any event, there will be increased pressure on publicly-financed institutions, particularly the University of Maine system. Specialized graduate school programs will increase in number, quality, and availability to meet expanded industrial, professional, and other demands. Vocationaltechnical training at the secondary level and beyond will assume increased importance. Off-campus educational programs of all types will also become increasingly important. Many will be available in the home via video or audio telecommunication; the potential has just been scratched.

The State will be hard pressed to finance the noncapital costs of education, such as faculty salaries and program development, from tax revenues. This suggests increased emphasis on the need for a financial commitment from the private sector, which will ultimately be repaid by the quality of its employees. The State may have to consider financial aid to college students in one form or another as an investment in human capital.

Maine has long been noted for offering cultural attractions to summer visitors. Year-round programs have evolved from them and from local initiatives. The performing arts have prospered in this context and promise to continue doing so. They contribute directly to Maine's economy, but they are not typically self-supporting. In view of their importance to the people of the State, however, they should be encouraged, and to some extent supported, by the State.

Health care in Maine has made major strides, aided by federal funds and by the inmigration of medical specialists of all types. But the rapid rise in health care costs, particularly as they affect Maine's aging population, is a major source of concern for the 1980's. Since health care costs reflect national cost standards, they present a particularly difficult problem for a low-income state like Maine. Cost containment must be a major item on the health care agenda for the rest of this decade, supplemented by more emphasis on home care and preventive medicine. The State itself may have to become more involved in health care to promote and protect the welfare of its citizens.

Although some elements of the "Maine lifestyle" have become increasingly like those of other states as the result of improvements in transportation and communication, Maine is still characterized by life close to nature with all that this implies as to self-reliance, appreciation of natural beauty, and an individualism that has been lost in more populous states. It is this lifestyle that has attracted the well-educated young inmigrants and made the need to leave the state for economic opportunity increasingly distateful to the native-born. The pressures for economic developments, combined with population growth, could pose a threat to the very physical qualities that have made life in Maine so attractive. Any meaningful agenda for Maine in the 1980's must therefore include high on the list the preservation of those things that make Maine what it is, while erasing the poverty which destroys the beauty for those low on the economic ladder.

The relatively high level of homogeneity that has characterized Maine society overall is changing as a result of the purposes for economic development, the influx of newcomers, and the clashing of values of different age groups. Public policies should take these differences into account, where possible, and at a minimum ensure that the various regions of the State where these differences are most pronounced, are treated equitably. In this context income maintenance policies, taxes, and the like should be reviewed to deter-

mine whether they are providing disincentives to work, migration, or retraining for meaningful employment.

D. THE ROLE OF GOVERNMENT AND POLITICAL PARTIES

The nature of politics and the roles of government in Maine at all levels are changing rapidly. As a rural, natural-resource state, Maine politics before 1940 reflected the views of farmers, fishermen, and forest workers more than those of the city dweller, professional person, or bench worker. All that is changing with the growth of urban areas and manufacturing, the inmigration of well-educated professionals, and the rise of self-employed business people. The new voters tend to see a more proactive role for government, and with it heightened standards of expertise and efficiency. The need for examination of the structure, financing, and performance of government at state, regional, county and local levels is implied by these developments. This has become a pressing need in view of the expanded responsibilities that the "New Federalism" has thrust on these lower levels of government.

The role of state government has increased, in significant measure funded by federal dollars which "The New Federalsim" now promises to curtail or withdraw. Any agenda for the 1980's must include a careful review of those programs that will be adversely affected by this development. It is already clear that the State cannot afford to take up the entire slack. Therefore, there must be a careful delineation between those programs that have proved themselves essential, and those which have been less successful or merely desirable.

It is all but certain that scarcity of public resources and fiscal distress will characterize the rest of the 1980's as far as State government is concerned; yet the importance of government in providing access to jobs, to human services, and to education will be increasing at the same time. The burden of maintaining or replacing public facilities, such as roads, bridges, sewers, and the like, alone provides a significiant challenge. Accordingly, long-term planning and budgeting must characterize government at all levels in the 1980's. The nature of the infrastructure crisis already developing requires innovations in government organization and financing at local, regional, and state levels.

For the above reasons the importance of intergovernmental co-operation will increase in the remainder of the decade. The degree of professionalization in the performance of governmental services has been increasing steadily and will continue. This should mean that the identification, analysis, and resolution of public policy issues can proceed on a relatively high level. By the same token, however, the decline of political parties as the primary mechanism for framing these issues may well continue unless strenuous efforts are made to prevent it. In an age of electronic communication that reaches into every household, emphasis is necessarily placed by political can-

didates on image identification as opposed to contrasting issue positions. For example, economic growth is a common theme of campaigns in both major parties; it is only left for the voter to decide who conveys an image of being likely to carry out campaign promises effectively.

The political challenge for Maine in the rest of the 1980's is closely related to issue identification and resolution. The breakdown of homogeneity in the Maine economy and society has threatened consensus on the path that the State should follow to the future. Unless politicial parties can present well-articulated options, based in consensus on ultimate goals, single-interest groups may be left to promote their causes by referenda without reference to the long-run, overall general welfare.

Within the context of these problems and opportunities, it will be up to Maine state government in the 1980's to ration scarce resources effectively; to define clearly its roles relative to the private sector and other levels of government; to stimulate economic growth and balance it properly with environmental protection; and respond to, but also to anticipate the needs of the people of Maine in a decade of change that offers challenges of unusual magnitude and promise.

CHAPTER VI
THE MAINE ECONOMY: PROJECTIONS TO 1990
The Maine Economic Policy Analysis Model (MEPAM): The Projections
Energy as a Cost of Production
Population, Income, Jobs
Patterns of Growth Within Maine

A. THE MAINE ECONOMIC POLICY ANALYSIS MODEL (MEPAM): THE PROJECTIONS

Participants in the Maine History Conference identified economic development—defined in a variety of ways—as the leading issue confronting Maine. In August of 1981, the State Employment and Training Council of the Maine Department of Labor asked the State Planning Office (SPO) to develop an economic forecast to the year 1990 for Maine. The State Employment and Training Council convened an advisory group, the Maine Forecasting Advisory Committee, to assist in identifying important social, political, and economic trends for that forecast. The proceedings from the Maine History Conference provided input into the model as well, and the work of all these projects was merged at a second Conference in August, 1982, the Maine Forecasting Conference. In December, 1982, the forecast was published by the State Planning Office as *The Maine Economy: A Forecast to 1990.*

This chapter, adapted from that publication, highlights projections in energy, population, income, employment, job patterns, and patterns of regional growth which will shape Maine's economy during the next decade.

State government policy makers are frequently asked to answer "What if...?" questions: What if an investment tax credit is provided? What if a cargo port is built? What if oil prices rise 50 per cent? All of these questions address the problem of determining the impact on Maine's economy of some

actual or proposed change. In order to solve forecasting problems, policy analysts have to do two things. First, they must spell out the chain of interrelations between the industry, region, agency, or price initially affected by the change, and all other industries, regions, agencies and prices indirectly affected by the change. Second, they must quantify and sum all these indirect effects so as to arrive at an assessment of the overall impact of the change.

To develop a forecast in as rigorous and formal a manner as possible, the State Planning Office developed a computer model. This model, the Maine Economic Policy Analysis Model (MEPAM), is capable of answering many of the preceding "What if?" questions. This model is based on the assumption that export employment in any given industry in Maine depends on the cost of producing that product in Maine compared to elsewhere. (Export employment is that which produces a product in-state which is then sold beyond its borders.) If the relative cost of producing in Maine goes up, then employment in Maine will fall, and *vice versa.*

To test this assumption, Professor George Treyz, of the University of Massachusetts gathered data on the comparative costs of production in Maine for the period 1967 to 1980, and compared them with Maine's share of national employment. He found that, on average, a one per cent increase in the relative cost of production in Maine industry produced a two per cent decrease in Maine's share of national production in that industry over a five-year period. Using this factor, the forecasting model then proceeded to project relative costs, labor costs, capital costs, and material costs for the various Maine industries for the 1980 to 1990 period.

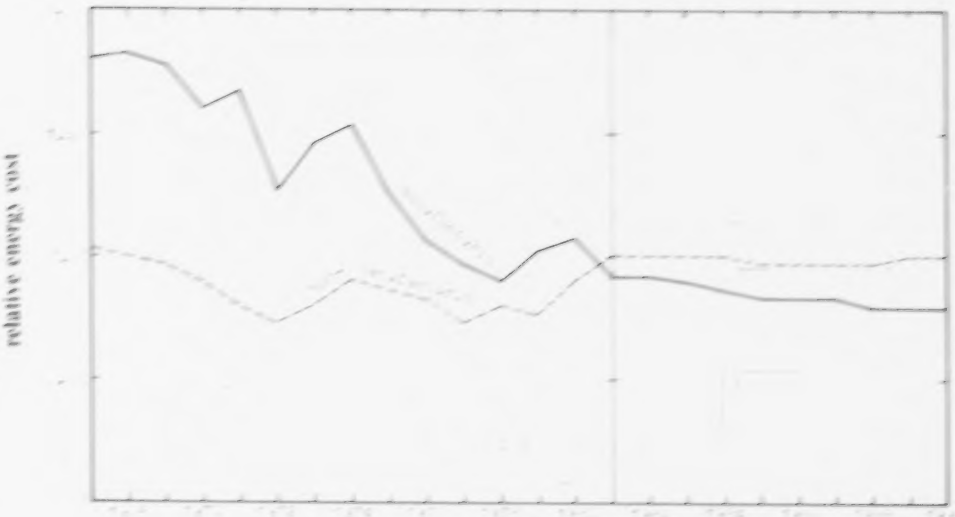
B. ENERGY AS A COST OF PRODUCTION

The MEPAM is driven by changes in the cost of production in Maine compared to the United States as a whole. By 1979, energy's share of production costs had risen to 6.11 per cent. Thus changes in relative energy costs will, through the model, help to determine future needs in Maine's employment, income, and population.

Historically, Maine's relative energy cost has exhibited significant fluctuation with a general trend of decline. As shown in Figure 1, the manufacturing sector in Maine had much higher costs than the nation a decade ago, but has seen these costs fall. In addition, both the manufacturing and non-manufacturing sectors show the effects of the sudden price increases that occurred in 1973 and 1979. Except for these incidents, however, Maine's price disadvantage has been declining for the past 15 years.

Given the assumption that oil price growth for the remainder of the decade will be relatively slow, and that no new major oil price explosions occur, this downward trend is expected to continue. At the same time, Maine industry will greatly benefit from the investment in wood, coal, and self-

Figure 1
Relative Energy Cost 1967–1990
Maine and U.S.



Source: Maine State Planning Office

generated hydroelectricity that it has made. As shown in Figure 2, even though electricity prices in Maine are likely to be higher than in the U.S.*, Maine's price advantage in "other" fuels will provide Maine with an overall energy cost advantage.** But Maine will continue to be heavily reliant on petroleum for much of its energy, as shown in Table 1. Based on U.S. Department of Energy price forecasts and conservation trends, the State's industrial dependence on oil will probably fall from 58 per cent in 1980 to 48 per cent in 1990.

Finally, decontrol of natural gas prices is likely to allow lower composite energy prices in Maine relative to the U.S. as a whole. Natural gas accounts for from 40 per cent to 50 per cent of the energy used by most industries in the U.S., but makes up only a tiny fraction of Maine's energy consumption. Therefore, industrial energy costs will probably rise more rapidly elsewhere in the U.S. than in Maine during the eighties.

As a result of decontrol, the increased use of renewable resources, and conservation, Maine should gain an increasing competitive edge with respect

*Central Maine Power has provided estimates of future electricity prices in Maine which are lower than those used here. If these forecasts are accurate, Maine's relative energy costs would be lower than this forecast implies.

**The oil prices in Maine are somewhat lower than in the U.S. because Maine uses much more residual oil, the cheapest petroleum fuel, than the U.S.

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Figure 2
Prices for Three Major Industrial Fuel Types 1972-1990
Maine and U.S.

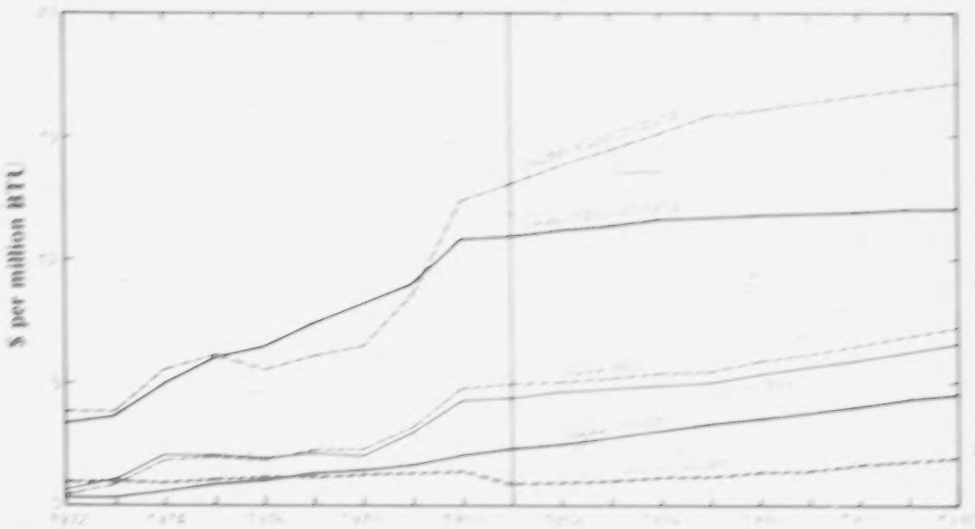

Table 1
Shares of Fuels in Manufacturing and Nonmanufacturing Industries in Maine, 1980 and 1990

	1980	1990
Manufacturing Industries		
Oil	57.6%	45.2%
Electricity	11.2	12.4
Other	31.2	42.4
Nonmanufacturing Industries		
Oil	80.2	78.4
Electricity	17.1	18.5
Other	2.7	3.1

Source: Maine State Planning Office

Another factor in Maine's improving relative energy costs will be its continuing efforts in conservation. Maine is already substantially ahead of the nation in energy conservation: its manufacturing sectors have cut overall consumption by 36 per cent since 1970; nonmanufacturing industries have cut consumption by 23 per cent in the same period.

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to energy costs. In the industrial sector, Maine's relative energy cost will probably fall from one per cent above the U.S. average in 1980 to 21 per cent below by 1990.

This trend toward declining energy costs in Maine is based on the assumption that any political disruption in the Middle East will, as in the seventies, serve merely to interrupt the generally downward trend of Maine's energy costs. Should such a disruption prove long lasting, then Maine's reliance on petroleum will clearly put it at a cost disadvantage. This forecast is also based on the assumption that Maine Yankee and other New England nuclear power plants remain open. Should they close for any reason, then Maine's relative energy costs would be somewhat higher.

C. POPULATION, INCOME, JOBS

The State Planning Office derived projections of Maine's relative production costs and relative shares of U.S. Markets. It then applied these shares to a forecast of U.S. employment obtained from the Data Resources Incorporated (DRI), in August 1982, to obtain a Maine export employment forecast.

Some 67 per cent of Maine's employment is dependent upon in-state sales, much of which, however, is dependent upon the export of Maine's goods and services. The Maine Economic Policy Analysis Model calculates this local employment by using the 1977 national input-output coefficients to estimate the sales which each industry makes to each other industry and to the final demand sectors (consumption, investment, and government). It then adjusts those figures by the so-called "regional purchase coefficient", which estimates the portion of those sales made to Maine firms.

Adding export employment and local employment yields total employment. Multiplying employment by wages and adding estimates of unearned income, the model yields a forecast of Maine personal income.

Changes in Population, Income, and Employment

In 1980, Maine had a population of 1,129,000. By 1990, MEPAM projects a population of between 1,216,000 and 1,266,000, an increase of 8 to 12 per cent. The low population forecast is based on an employment growth of 57,000 jobs and 1.5 per cent inmigration rate. The high population scenario is based on an employment growth of 87,000 and an inmigration rate of 5.75 per cent.

Natural increase (births minus deaths) is projected to add 72,000 persons (6.4 per cent) to Maine's population during the 1980's. This would yield a 1990 population of 1,201,000 people. A population of that size, however, will be too small to sustain the economic activity projected for 1990. Migration, then, will be a key variable in Maine's economic and population growth during the 1980's.

The number of jobs in Maine in 1990 is projected to range between 570,000 and 600,000 (see Appendix F). Many of these jobs will be seasonal or part-time. Nevertheless, to sustain even the lower employment number will require that migration add 14,000 persons to the population. To sustain the higher number, 65,000 persons would have to be added through migration.

Table 2 compares projections in 1990 of population, employment, income and income sources for the U.S. and Maine. For Maine, low and high growth projections are presented.

Table 2
Projected Population, Employment and Income Changes
U.S. and Maine, 1980 to 1990*

	U.S.	Maine	
		Low Growth	High Growth
Population Growth	10%	8%	12%
Employment Growth	19	11	17
Income Growth			
(In Constant Dollars)	25	16	21
Growth From Increased Earnings	17	7	11
Growth From Increased Unearned Income	8	9	10

*Sources: *Data Resources and SPO Maine Economic Policy Analysis Model.*

In both low and high growth projections, Maine's increases in employment and income are expected to lag behind that of the U.S. In addition, 8 percentage points of the U.S. growth is projected to come from unearned income. This contrasts with 9 percentage points out of 16 per cent in the Maine low growth forecast, and 10 percentage points out of 21 per cent in the high growth forecast. The Maine population will be more dependent upon increases in unearned income than the U.S. population as a whole.* In addition, *per capita* earnings are virtually identical for both the low and high growth scenarios because most of the additional jobs created in the high growth scenario pay below average wages. The reason for this differential lies in the nature of the jobs likely to be created over the rest of the decade.

Table 3 divides the sectors of the Maine and national economies into two categories: sectors in which annual earnings per job were below the U.S. average for all jobs in 1980, and sectors in which the annual earnings per job were at or above the U.S. average.

*Unearned income is very diverse, including everything from land rental to AFDC payments.

Table 3
Distribution of New Jobs Between
Low and High Earning Sectors, U.S., and Maine, 1970 to 1990

	Character of New Jobs 1970 to 1980		Character of New Jobs 1980 to 1990		
			U.S.	Maine	
Type of Sector	U.S.	Maine		Low Growth	High Growth
High Earnings	10%	11%	39%	13%	11%
Low Earnings	90	89	61	87	89
Total	100	100	100	100	100

Sources: U.S. Department of Commerce, Bureau of Economic Analysis and SPO Maine Economic Policy Analysis Model.

Ninety per cent of new jobs created in both Maine and the nation were in sectors with below average annual earnings per job. As a result, the overall earnings per job in both State and national economies declined when measured in constant dollars. A substantial part of the reasons for the low annual earnings in those sectors falling below the U.S. average is the part-time, seasonal character of jobs in these sectors. For example, 80 per cent of the new jobs created between 1970 and 1980 and 55 per cent of the new jobs in the U.S. were in retail trade, services and government. In 1980, fewer than one half the persons employed in these sectors worked full time, year round, whereas 65 per cent of everyone employed in the economy's other sectors did so. Thus, the rapid growth of these sectors with high proportions of part time, seasonal jobs helps to account for the decline between 1970 and 1980 in overall earnings per job.

Table 3 also explains why annual earnings per job are projected to decline further in Maine between 1980 and 1990 while increasing in constant dollars in the U.S. Thirty-nine per cent of the projected new jobs to be created in the U.S. will be in sectors where the 1980 earnings per job equalled or exceeded the overall national average. Only 11 to 13 per cent of the projected new jobs in Maine, however, will be located in the state's high earning sectors. As in the nineteen seventies, almost nine-tenths of the new jobs created in Maine will be in sectors where the earnings per job fell below the 1980 overall U.S. average. Hence, differences between Maine and the U.S. in the sectoral composition of projected employment account for the fact that Maine's earnings per job are projected to decline in constant dollars while increasing in the U.S.

Given the widening gap projected between Maine and the U.S. for employment and income growth, and the probability that unearned income will

grow more slowly in the eighties, Maine may have difficulty attracting the needed inmigrants to sustain job projections. Many of these jobs will be low-paying, part-time, or seasonal jobs which could discourage people from moving in to take them.

The only evidence supporting the probability that Maine will attract these migrants is the experience of the seventies. Despite the fact that employment opportunities and income were growing more slowly in Maine than in the U.S., 76,000 persons migrated into the State. Studies of inmigrants conducted by Professor Louis Ploch of the University of Maine at Orono seem to suggest that the quality of life in Maine is a more powerful determinant than affluence in people's decision to move. The question facing Maine now is whether people will continue to move to the State if the relative earnings per worker decline further during the nineteen eighties. The answer will affect the working-age distribution of Maine's future population.

Changes in the Age of the Population

Table 4 presents the 1980 age composition of the Maine population and the projected age compositions of the 1990 Maine population associated with both low and high employment projections.

Table 4
Age Composition of the Maine Population
1980–1990

Age	Actual 1980	Low Growth Projection 1990	High Growth Projection 1990
Persons 65 or Older	142,000	183,000	185,000
Persons 45 to 64	220,000	226,000	239,000
Persons 25 to 44	305,000	370,000	389,000
Persons 18 to 24	142,000	133,000	139,000
Persons 5 to 17	241,000	213,000	221,000
Persons Under 5	79,000	90,000	93,000
Total	1,129,000	1,215,000	1,266,000

Source: Maine State Planning Office

Tables 5 and 6 present the 1980 to 1990 changes for each age group and summarize the differences between the high and low projections. The most notable difference is that the high growth projection shows 32,000 more people in the 25 to 64 age group. This reflects the fact that Maine will have to attract working-age migrants to fill all the jobs that would be created by the

high growth projection. Table 6 compares Maine's high and low growth scenarios to the U.S. growth projection by age group prepared by the U.S. Department of Commerce.

Table 5
Population Increase by Age Group
1980–1990

Age	Change Low Growth	Change High Growth	Difference Between High-Low
Persons 65 or Older	+41,000	+ 43,000	2,000
Persons 45 to 64	+ 6,000	+ 19,000	13,000
Persons 25 to 44	+65,000	+ 84,000	19,000
Persons 18 to 24	− 9,000	− 3,000	6,000
Persons 5 to 17	−28,000	− 20,000	8,000
Persons Under 5	+11,000	+ 14,000	3,000
Total	+86,000	+137,000	51,000

Source: Maine State Planning Office

Table 6
1980 to 1990 Rates of Population Change

Age	Maine Rates Low Growth	Maine Rates High Growth	U.S. Rates
Persons 65 or Older	+29%	+30%	+19%
Persons 45 to 64	+ 3	+ 9	+ 6
Persons 25 to 44	+22	+28	+26
Persons 18 to 24	− 6	− 2	−12
Persons 5 to 17	−12	− 8	− 3
Persons Under 5	+14	+18	+21
Total	+ 8	+12	+10

Source: Maine State Planning Office

This comparison indicates that, by either scenario, Maine will have less growth than the U.S. in the 0-17 age group; and that in the prime working age group (25 to 64), Maine is likely to have growth just slightly more or less than that of the U.S. In the 18 to 24 age group, Maine is likely to have a smaller decline than that in the U.S.

Projected Changes in Employment

Bearing in mind the energy and population projections for 1990, the State Planning Office was able to develop a projection of the likely economic structure for Maine in 1990. Table 7 summarizes that projection.

Table 7
Projected Changes in Employment by Sector, 1980–1990

Sector	1980 Totals	Low Growth	High Growth	Growth 1980–1990		% Change		% Change for U.S.
Natural Resources	71,600	70,000	73,000	– 2,000	+ 1,000	– 3%	+ 1%	+ 1%
Construction	21,000	20,000	23,000	– 1,000	+ 1,400	– 3%	+ 7%	+ 27%
Clothing	33,500	36,000	38,000	+ 2,000	+ 4,500	+ 6%	+ 13%	+ 1%
Metals and Electronics	26,000	34,000	37,000	9,000	11,000	+ 33%	+ 42%	+ 15%
Other Manufacturing	8,900	10,400		1,500		+ 17%		+ 13%
Government	96,900	96,000	100,000	– 1,000	+ 2,000	– 1%	+ 2%	+ 7%
Trade and Services	213,300	251,000	267,000	+ 38,000	+ 49,000	+ 18%	+ 25%	+ 26%
Nonfarm/ Nonfish Proprietors	41,300	51,600		9,600		+ 23%		NA
Total	512,600	570,000	600,000	57,000	87,000	11%	17%	21

Source: Maine State Planning Office *Maine Economic Policy Analysis Model*. See Appendix F for more detail.

In many ways, the pattern of industrial growth likely to occur in Maine throughout the remainder of the eighties will be very similar to that which occurred in the seventies. The vast majority of new jobs created will be in the trade and services sector. Many of these will be part-time and low-wage jobs. In the industrial sector, Maine's traditional industries—shoes, textiles, and those based on natural resources—will show continued stability, while the metals and electronics sector will continue its rapid growth.

Maine agriculture witnessed a substantial transformation during the seventies. Three of its basic sectors— poultry, milk and potatoes—suffered serious setbacks. At the same time, the number of farms and farmers increased, by and large because of an increase in part-time farmers. Increasing numbers of Mainers held jobs off the farm while clearing fields, growing vegetables and raising sheep during their off hours. This trend is likely to continue and, when combined with efforts to stabilize the traditional cash crops, could mean a new life for Maine agriculture.

In the other industries in the natural resource sector— fishing, food processing and forest products—there is little likelihood of significant employment growth. Some emerging industries, such as the production of particle-

board, will create new jobs; but this growth will probably just offset the job loss associated with ongoing technological advance.

During the 1970's, the metals and electronics sector was Maine's growth star, adding nearly 9,000 jobs for a 52 per cent increase. In the 1980's these industries will probably add another 9,000 to 11,000 jobs, for a 33 to 42 per cent increase. Just as the textiles and shoe industries did in past generations, these industries are moving north from southern New England to draw upon Maine's lower cost, higher quality labor. The key determinant of their continued growth is the availability of skilled Maine workers.

The industry with the most uncertain future in Maine over the remainder of the 1980's is probably the construction sector. During the mid-1970's, construction employment reached nearly 25,000, as Maine's paper mills expanded and the Federal government financed waste water treatment plants and nearly one half of the new homes built in the State. Since then, however, paper company modernization and expansion has slowed considerably, Federal grants have been cut drastically, and high interest rates have kept private construction at extremely low levels.

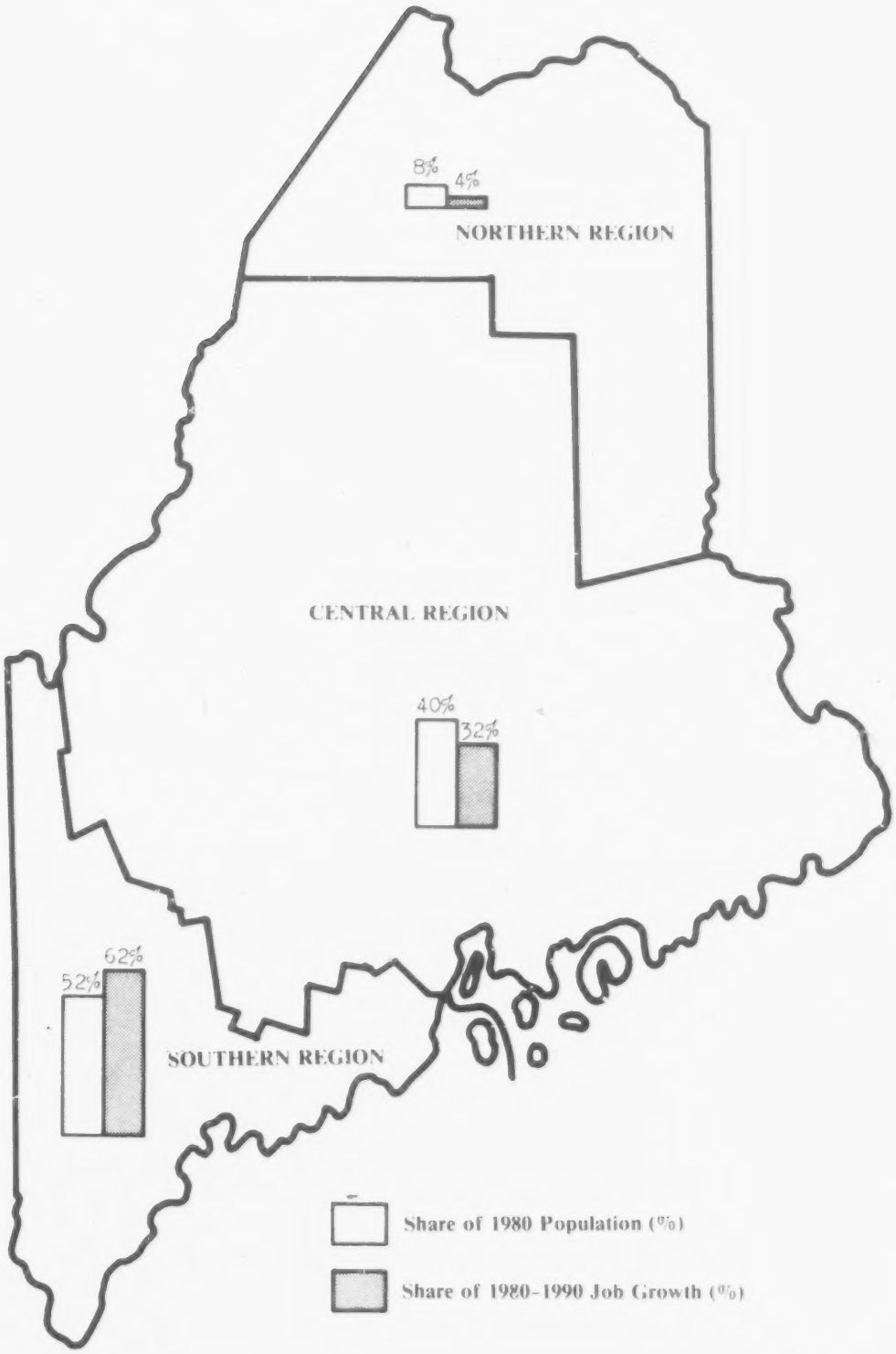
Employment growth in construction depends largely on national financial markets and on government's commitment to restoring the public facilities that have been so badly neglected over the past twenty years. If interest rates are low and if private construction is up, and government commits itself to major public works, the construction employment in Maine could recapture its 25,000 peak. If, on the other hand, the economy is stagnant and tax revolt fever leads to continued neglect of roads, bridges, schools, sewers, and other public facilities, construction employment in Maine could fall to 18,000 to 19,000 by 1990.

As in the seventies, most of the new jobs created in Maine in the eighties will be in the trade and services sector. Of the 57,000 to 87,000 new jobs expected over the remainder of this decade, fully three-fourths will be in the trade and services sector. Many of these, moreover, will be part-year, part-time jobs, which, by and large, pay below average wages.

Maine in the regard, is simply participating in the national trend toward more and more service jobs. This is neither an avoidable nor undesirable trend. However, since these service jobs depend on the income earned by basic export employment, the wages they pay will be limited by the wages paid in Maine's export sectors.

Finally, the government is likely to see less employment growth than in the past. Due to the aging of Maine's aging population, the focus of government services is likely to change over the remainder of the eighties from a youth and education to elderly and public safety and social service issues. Since education is the most labor-intensive of government services, government is likely to decline as schools trim their faculties through attrition and layoffs.

Figure 3


8%
4%
NORTHERN REGION
CENTRAL REGION
40%
32%
62%
52%
SOUTHERN REGION
Share of 1980 Population (%)
Share of 1980-1990 Job Growth (%)

D. PATTERNS OF GROWTH WITHIN MAINE

One need not think in terms of hemispheres to cast economic disparities along North/South lines. Industrial growth likely to occur in Maine in the near future will largely continue in the State's southern region. Metals, electronics, other manufacturing, construction and trade and services industries tend to be located in southern and central Maine.

In the southern part of the State, growth pressures will generate issues of increasing importance: land use and subdivision ordinances, public facilities, and industrial location will all clamor for public attention. The Northern part of the State will suffer closing businesses and loss of tax base, out-migration, and cries of "Do something about it" will be heard.

Figure 3 divides the State into three regions and shows the disparity in population and job growth that will become increasingly evident over the rest of this decade if job gains and losses in each sector are distributed according to their current pattern.

Region one—Southern Maine—accounted for 52 per cent of the State's 1980 population but is likely to get 61 per cent to 64 per cent of the new jobs created by 1990. By contrast, region three—Northern Maine— accounted for 8 per cent of the State's 1980 population and is expected to get between 4 per cent and 5 per cent of the new jobs. Region two, with 40 per cent of the 1980 population, is likely to get 30 per cent to 35 per cent of the new jobs. Clearly, this trend points to problems of dislocation which State and local governments in Maine will have to face.

CHAPTER VII
DEVELOPMENT ISSUES FOR PUBLIC POLICY

Introduction
Human Resource Development
Capital Resource Development
Natural Resource Development
State and Local Government Finance
Bibliography for Further Reading

A. INTRODUCTION

This chapter suggests a program based on the major issues identified by the *Maine: Fifty Years of Change* Conference and trends projected by the *Maine Economy: A Forecast to 1990.* These issues and trends are organized into four major areas: (1) Human Resource Development; (2) Capital Resource Development; (3) Natural Resource Development; and (4) State and Local Government Finance.

B. HUMAN RESOURCE DEVELOPMENT

An economic development strategy must include not only those human development programs such as education and training that are directly productive, but also programs essential for the more fundamental determinants of productivity such as physical, mental, and social health.

The single most critical element in determining the future of Maine's economy is the skill of its workers. Over the next decade Maine faces an unprecedented opportunity to increase its share of the metals and electronics industries. This sector has provided the bulk of the State's manufacturing growth in the seventies and promises to continue to do so over the eighties. One significant obstacle to this growth is the availability of workers with needed skills.

At the same time, demographic changes will radically alter the character of Maine's labor force. In the sixties and seventies the major challenge to the labor market was to provide jobs for young people entering the market. In the eighties and nineties there will be far fewer young people; a new challenge will be to provide those now working with the opportunity to improve their skills or to be retrained, particularly if they have lost their jobs in mature industries.

Ninety per cent of the people who will be in the labor force in 1990 are in the labor force now. Our educational institutions have been designed to serve young people not yet in the labor market. The major education and training issue of the eighties will be how to restructure these institutions to serve more effectively the needs of those already in the labor market.

In order to respond to the opportunities presented by the growth of the metals industry to adjust to the stabilization of Maine's mature industries, the State must have a flexible system of education and training. Because education and training activity in Maine crosses so many lines of authority— federal, state and local— flexibility cannot be made the responsibility of any one agency. Rather, the State must assume strong leadership in asserting an interest in insuring that training programs be designed for specific industry needs and that modes of delivery be varied. It must encourage experimentation and provide incentives for employers to work with training organizations rather than simply to express their personnel needs. An active dialogue is necessary between education and business in order to train young people and to retrain older people for jobs that will be there. The State needs not only capital resource policy but an explicit human resource policy designed to guide the efforts of those involved in education and training.

In addition, the quality of formal education is likely to become an even more controversial issue in the eighties than it was in the seventies. Declining enrollment coupled with growing pressure on the property tax will lead to closer scrutiny of school budgets. At the same time, concern for equipping Maine's children with the skills necessary to compete for available high-skill, high-wage jobs will grow.

Changes in population and employment will have a great impact on social service programs. Between 1980 and 1990 the number of people in Maine aged 65 and older will increase by 30 per cent, compared to an increase of 8 per cent to 11 per cent in the population as a whole. This will increase the elderly's share of the total State population from 12 per cent in 1980 to between 14 per cent and 15 per cent in 1990. This demographic shift, coupled with ongoing efforts in Washington to cut Federal social service funding, will lead to increased demand on State and local governments to provide social services. As discussed in Chapter VI, the sectoral and regional shift in Maine's base will bring social service programs to the forefront of public attention through the rest of the decade. This shift has caused and will continue

to cause severe dislocation in many communities. One need only look at the effects of the closing of the poultry processing plants in Belfast to see an example of such dislocation.

In short, the ongoing growth of the metals and electronics industry which presents Maine with an opportunity to increase its share of high-skill, high-wage jobs, also creates the danger of accentuating the division between the "two Maines": one in the south based on high-wage and growing industries, and a second in the north based on low-wage, mature industries and part-time employment. As this spirit grows more and more apparent, and as more of the State's people demand both social service and economic assistance, the potential for social conflict increases over limited public and private resources.

C. CAPITAL RESOURCE DEVELOPMENT

No economy can flourish without a solid foundation of public facilities. While success in the private economy depends ultimately on individual competitiveness, no enterprise, however efficient, can compete in regional, national and international markets without the benefits of an efficient transportation system, reliable supplies of water and energy, and liveable communities. The primary thrust of Maine's economic development efforts in the past several years has been to revitalize these facilities. Maine voters approved bond issues of over $30 million in 1979, $15 million in 1980 and nearly $50 million in 1981 for the construction and renovation of fish piers, for the creation of a major cargo port, for purchase and installation of a massive dry dock facility, for improvements in highways, bridges amd airports, and for weatherization of public buildings. In addition, the legislatively-mandated Highway Cost Allocation Study proposed major reform of the State's highway financing system.

Given its size, the nature of its products, proximity to the sea, and the growing importance of international trade, Maine's transport infrastructure—that is, roads, bridges, and ports—will need to be a high priority item. The major issues in this areas in the future will be effective implementation of these projects in cooperation with the private business and local governments involved.

In addition to its roads and ports, Maine has a huge investment in water and sewer facilities, municipal buildings, waste disposal sites, and other public facilities. Unfortunately no adequate inventory of the value or physical condition of these facilities exists. As a result, when they wear out, spring leaks, fall apart or otherwise deteriorate, the public is often saddled with a huge, unexpected bill. Over the eighties this "infrastructure" problem will become more acute and, in all probability, there will be fewer Federal dollars to help out states and localities. Responding to a growing need to complete a backlog of essential basic facilities, Maine State government in

1982 began developing a five-year Public Works Program. This will be the first integrated public works program of its kind proposed in the State's history. Completing this program in the context of a State and local capital budget will remain an ongoing challenge in the eighties.

D. NATURAL RESOURCE DEVELOPMENT

The people of Maine are as close to and concerned with their natural resources as are any in the country. Maine's 2,500 miles of coastline are renowned throughout the world. It is the most heavily forested state in the nation, and produces more paper than any other state. Tens of thousands of Maine workers are employed in the agricultural, fishing, forestry, and food processing industries. Together, natural resource-based industries constitute roughly 30 per cent of the State's export base.

Equally important is the easy access and quiet beauty of Maine's natural environment. Hiking, hunting, fishing, swimming, canoeing and other outdoor activities not only provide the basis for the State's thriving tourist industry, but also provide the foundation for a lifestyle that Mainers find unique in the world.

For these reasons, Maine through the 1970's was the national leader in environmental protection. The benefits of that effort are now paying off in cleaner air and water. Looking to the future, Maine must not merely protect its resources, but also encourage their best use. Wise management must be the theme of future State resource policy. Maine's most important natural resources include its forests, farmland, minerals, and water.

Maine's **forests** cover almost nine-tenths of the State and are more extensive than they were a century ago. As a result of the varied demand for timber products, Maine forests, in some areas, display the effects of three centuries of overcutting, high-grading, fire, and other misuse. In the most remote districts, repeated high-grading and underutilization due to poor markets have reduced the quality of the growing stock and failed to establish a well-regulated distribution of age classes.

The forests have suffered from the chestnut blight, pine blister rust, gypsy moth, spruce budworm, and Dutch Elm disease. Up to the early 1970's, Maine's forest was underutilized so that growing stock volumes increased. During the 1970's this inventory fostered a major expansion in papermills and large sawmills, supported large shipments of logs to Quebec and provided the basis for a growing fuelwood industry. In addition, a wave of suburban sprawl and recreational development expanded human activity into previously rural and forested areas.

At present, Maine's forest yields far less than it might in wood fiber, wildlife recreational benefits, and aesthetic values. Too much shoddy cutting continues, especially on small, private holdings.

In January 1981, the Brennan Administration convened a Blaine House Conference on Forestry. For the first time, State officials and private landowners sat together to consider the problems confronting the State's forest resources. To follow the beginning made at this conference, the participants will need to initiate cooperative efforts throughout the eighties.

The use of Maine's land resources is changing. In the 1920's nearly a quarter of the State's total acreage was in **farmland**, compared to only 7.5 per cent today. Over a million and a half acres were in crops then, compared to only 650,000 today. Reforestation has been occurring throughout the State as a consequence of the decline of agriculture. Population growth and its corresponding demand for land for residential, commercial, industrial and recreational uses has brought increasing pressure on the land, and intensified the competition among alternative land uses, particularly in the southwest coastal areas of the State and the I-95 Corridor.

The primary challenges facing the State in farm land management are two: prevention of soil erosion, particularly in the potato growing region of Aroostook County; and identification and preservation of prime farmland subject to development pressure. The State must recognize its farmland constitutes a finite resource, to be used wisely so that its value and productive capability are preserved for the generations to come. One third of the land in agriculture today is in the I-95 Corridor. This area contains less than 16 per cent of the State's total land area, but 62 per cent of the State's population. The Corridor region is also growing more rapidly than the State as a whole, and the growth pattern has been one of heavy suburbanization. Over the past decade, suburban towns in the Corridor grew by 46 per cent and rural towns by 41 per cent, whereas urban towns grew by only 5 per cent. This growth has caused small towns to become increasingly concerned with land use issues, and the need to reserve open space to preserve their traditional rural character.

All indications show that growth pressure will accelerate through the eighties. Thus, the issue of land controls both for agriculture and residential purposes is likely to remain a controversial issue.

Except for the quarrying of granite that flourished around the turn of the century, the **minerals** industry in Maine has always been small. Today, however, discoveries of hardrock minerals and the opportunity to use peat as a fuel promise to change this. As a result, the State must face the issues associated with minerals development as it now looks to the exploitation of its peat and copper resources.

In response to this challenge, the State will need to continue the work of the Department of Conservation's minerals policy review. In 1982, legislation creating a minerals excise tax which provides for local impact payment to affected communities and established a long-term Trust fund was passed by the Maine Legislature. In the long run, a minerals policy and program for state-

owned lands including submerged lands and beds of Great Ponds will be needed. If a major strike were to occur tomorrow on those lands, the current policy framework would not be adequate.

Maine's **water** resources were its first source of secure food supply, its earliest avenues of commerce, and its first source of industrial power. Today, many major manufacturing concerns depend heavily on hydropower just as they did when first established. The State's water resources also form a critical part of its quality of life. Clear water and undisturbed remote ponds and brooks, all readily available to the State's citizens, are distinctive features of Maine life that are ingrained in its culture. These features are a key basis of the State's important tourist industry.

The increasing cost of oil has stimulated a minor boom in hydroelectric dam development and rebuilding, leading to considerable litigation and legislative debate. Rising oil prices have resurrected old dam proposals like Lincoln School, the Cobscook Bay tidal power projects, and several mainstem dams on the Penobscot and the Kennebec. These projects raise major environmental and recreational questions. Although Dickey has been settled for a while, the others promise abundant controversy. The intensity of this issue will increase in the eighties.

A new, subtle threat of great significance in a State where home wells are important is long-term groundwater pollution. There is a need to increase research on groundwater resources and their protection.

Maine has a place several major institutions designed to protect the recreational, aesthetic, and environmental values of waterways. These include public ownership of tidal seabeds and Great Ponds, the Allagash Wilderness Waterway and Penobscot Conservation Easement, and several regulatory programs. In the summer of 1982, by Executive Order, Governor Brennan designated a list of streams restricted from further hydro development, and set in motion major studies of hydropower potential and of new riverway conservation initiatives. These efforts will lead to recommended programs for enhancing development and conservation. Responding to the findings and recommendations of this effort will undoubtedly be a major task for State government through the remainder of this decade.

E. STATE AND LOCAL GOVERNMENT FINANCE

The late 1970's marked an historic turning point for State and local government financé, in both Maine and the U.S. After decades of substantial growth, real State and local government spending began to decline after 1978.

In Maine, the share of personal income going to State and local government in taxes fell from 12.7 per cent in fiscal 1978 to 11.9 per cent in fiscal 1981. During this period, Congress undertook a massive effort to reduce

Federal spending. As a result, there are fewer State and Federal dollars available to meet Maine's public needs.

Another major change in the public sector that began in the seventies and will continue through the eighties is the changing demand for public services. As Maine's population ages, the demand for traditional educational services is likely to decline, while the demand for social and health services for the elderly is likely to increase. Table 1 presents a capsule picture of this change.

Table 1
Changing Demand for Public Services in Maine

	1980	1990
School Age Children	248,900	198,000 to 217,000
Population 65 & Older	142,000	183,000 to 185,000
Population At Or Below 125% or Poverty Level	208,000	216,000 to 236,000

Source: Maine State Planning Office estimates.

In addition, the need to repair and upgrade Maine's roads, ports, water and sewer plants, municipal buildings, and other public facilities will become more and more obvious as the decade wears on.

To maintain even a constant level of State and local services in 1990 will require that expenditures grow from their 1980 level of $1.6 billion to approximately $3 billion by 1990. To upgrade educational and social services to the national average, and to increase public works spending by 20 per cent in real terms, would require expenditures of about $3.8 billion by 1990.

The implications of these goals for State and local government expenditure and employment are presented in Table 2. The low growth estimate indicates total State and local government expenditures of approximately $3 billion by 1990, an increase of 92 percent over the 1980 level of $1.58 billion. However, if the projected inflation rate of 100 per cent over the decade holds true*, then this total will actually represent a decline in the real value of State and local government expenditures. Even more strikingly, it will involve the loss of about 7,000 government jobs, a drop of about 11 per cent from the 1980 level of 64,700.

The high growth estimate indicates total expenditures of $3.81 billion by 1990, a 140 per cent increase over the 1980 level. This growth estimate also indicates a growth of about 9,000 jobs in the State and local government sector.

Which of these or other scenarios ultimately proves correct will depend in large part on how Maine's citizens resolve the current debate surrounding

Table 2
Projected Maine State and Local Government Expenditures and Employment, 1990

a. Expenditures (millions of current $'s)

Category	1980	1990 low growth	1990 high growth
Education	$ 544	$ 870	$1,215
Highways**	240	480	585
Health & Welfare	336	690	990
All Other	460	1,000	1,020
Total	$1,580	$3,040	$3,810

b. Employment (assuming 1980 employment/expenditures ratio)

Category	1980	1990 low growth	1990 high growth
Education	40,260	32,200	45,000
Highways**	5,280	5,300	6,500
Health & Welfare	4,700	4,800	6,900
All Other	14,260	15,400	16,000
	64,500	57,700	74,400

Source: Maine State Planning Office *Maine Economic Policy Analysis Model.*
*This projection is from the Data Resources, Inc., long-run national forecast of August 1982.
**includes water and sewer

the appropriate level of taxation. Maine citizens face the following choices with respect to State and local government services:

1. Continue the recent trend to pay more in property taxes and user fees; or
2. Reverse the recent trend to limit State taxes, such as the indexing referendum, and pay for a greater share of State and local needs through them; or
3. Decrease the level and quality of public services.

One option which Maine citizens will not have available in the near future is to rely on the Federal government to provide a larger and larger share of the money needed to pay for State and local services. Given the uncertain state of the national economy and the enormous size of the Federal deficits stretching into the late 1980's, it is virtually certain that Federal funds will, at best, continue to finance about one-quarter of Maine's State and local government needs. Thus, Maine citizens are going to have to decide for themselves what levels of State and local services they require, and how to pay for them.

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State of Maine

OFFICE OF THE GOVERNOR

AUGUSTA, MAINE 04333

January 8, 1982

Dear Colleague:

Earlier this year, Chancellor McCarthy, President Woodbury, and I initiated a Partnership Agreement to encourage State government to make greater use of University faculty and staff capabilities. As part of that effort, I would like to invite you to participate with others who have devoted part of their professional life to the study of the State of Maine in a conference organized by the State Planning Office and the University of Maine to discuss major trends in Maine from 1940 to 1990.

The State Planning Office is currently developing a ten-year forecast of the State's economy and would appreciate your insights regarding what you consider to be the most significant economic, social and political trends in Maine that will dominate the 1980's. We hope that this one-day conference will provide a key source of ideas for this forecasting effort and will produce a proceedings volume that will help illuminate the key trends in Maine during this period of rapid change. We believe that understanding our past can heighten public awareness and better shape public policy in the future.

This conference, entitled, Maine: Fifty Years of Change, 1940-1990, will be held on Saturday, February 13, 1982, at the Augusta Civic Center.

I look forward to your participation in this conference.

Sincerely,

Joseph E. Brennan

JOSEPH E. BRENNAN
Governor

JEB/sc

Appendix B

HISTORY CONFERENCE AGENDA
MAINE: FIFTY YEARS OF CHANGE
1940–1990

Augusta Civic Center
Saturday, February 13, 1982

9:00- 9:30 — Registration and Distribution of materials
Left Hallway (1st Level) Nancy Valley and Donna Roberts

Coffee and donuts
Cushnoc Auditorium (1st Level)

Headquarters—Office: Somerset Room (2nd Level)

9:30- 9:50 — General Assembly—Cushnoc Auditorium
Frederick Hutchinson presiding, UMO

- Welcome from University Chancellor Patrick McCarthy
  University-State Partnership Program
- Welcome from State Planning Office Director Richard E. Barringer
  - Origin of Conference
  - Expectancies of State Agencies
  - As one contribution to public policy process
- Procedure of the Day
  Frederick Hutchinson
  - Morning: Trends from Working Papers
  - Afternoon: Workshops—contribution of Conferees
  - Concluding Session

9:50-10:00 — Introductions: Conferees and their views; warm-up poll
Arthur Johnson

10:00-11:30 — Overview of Maine's Past and Future
Frederick Hutchinson presiding
Wilfred Richard, Recorder

- Summary by Coordinators of Working Papers
  Remarks in three categories, allowing 30 minutes for presentation and comments on each paper. Each covers:

  (1) Historical trends to 1980 in Maine

(2) Expectancies during the 1980's based on trends and the dynamics of resources, demography, national economy and government, technology, and changing values affecting lifestyles.

(3) Questions or comments from Conferees

10:00-10:30 • The Changing Maine Economy
Carl Veazie, CRAS

10:30-11:00 • Social Development
Stephen Simonds, HSDI

11:00-11:30 • Political Attitudes and Governmental Management
Kenneth Palmer, UMO

11:30-12:00 Completion of Questionnaire to guide Workshop discussion

11:30-12:00 Meeting of the Leaders of the four Workshop discussion groups
Somerset Room.

- Moderators
- Resource Person
- Recorders

with Arthur Johnson, Robert Goettel and Lloyd Irland to review Workshop Process and Purpose.

12:00- 3:00 Working Lunch—Buffet Style; served in 2nd floor hallway and eaten in the rooms to which each participant has been assigned for a discussion group.

Piscataquis Room Group:
Moderator: Robert B. Binswanger, Vice Chancellor
Resource Person: Carl Veazie, USM
Recorder: Frank O'Hara, SPO

Washington Room Group:
Moderator: Paul Silverman, President, UMO
Resource Person: James Horan, UMO
Recorder: Denise Lord, SPO

Sagadahoc Room Group:
Moderator: Robert Woodbury, President, USM
Resource Person: Stephen Simonds, USM
Recorder: Charles Lawton, SPO

York Room Group:
Moderator: Constance Carlson, President, UMPI
Resource Person: Kenneth Palmer, UMO
Recorder: Richard Sherwood, SPO

- At 3:00—Final Questionnaires are collected by Moderators.

3:00- 3:30 Social Break—After Completion of Final Questionnaire
Coffe-Tea in Cushnoc Auditorium

3:00- 3:30 Workshop Leaders Meeting
The four Workshop group moderators, resource persons and recorders meet with Robert Goettel and Arthur Johnson in the Sagadahoc Room to prepare their summary presentations.

3:30- 4:20 General Assembly—Cushnoc Auditorium
Robert J. Goettel presiding

- Introduction of each moderator for a 10-minute report
- Conference synthesis
  Arthur Johnson, 10 minutes

Adjournment

Appendix C

WORKSHOP DISCUSSION AGENDA

Key Issues for the Eighties

Participants will attend one of four discussion groups with the opportunity to shape the priority issues for public policy through both group discussion and individual written response.

Three separate working papers have been prepared for the Conference emphasizing Maine's economic, social and governmental development in recent years. These texts will be available at the Conference and a summary presented during the morning session. Based on the three working papers the following issues or questions appear to be on Maine's agenda for the eighties:

- Will economic development be the leading political issue? Will it feature traditional industry, new technology or small scale growth?
- Does Maine's labor force have the knowledge and skills necessary to support economic development in the eighties?
- Are public assistance and other income maintenance programs disincentives?
- What changes in attitudes or in public and private sector roles are necessary for Maine's economic development?
- Should public policy encourage some industries and discourage others?
- How can adequate housing be made available during the eighties?
- Maine lifestyles have been affected by public policy in the past. Are there special areas that should be affected in the eighties?
- What should be the Federal and State role in assuring quality health care at reasonable cost?
- Should the contributions of higher education change in Maine?
- Should arts and cultural activities be supported by the State or more by private efforts?
- Federal programs are changing and some are being turned over to the states. Which functions or programs are least essential for Maine to continue?
- Can Maine replace its outmoded public facilities— roads, bridges, water and sewer, etc.—without Federal help?
- Will our institutions (health, courts, etc.) and professions be directed or encouraged to change?
- What is the likely role of political parties during the eighties?
- Will emphasis on energy conservation and renewable resources be adequate to meet Maine's transportation, heating and power needs?

- What three issues do you think are most crucial for the 1980's?
- For the discussion groups, please be prepared to list any other issues not mentioned that you consider equally important.

Appendix D

PARTICIPANT LIST
MAINE: FIFTY YEARS OF CHANGE

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Appendix E

THE CONFERENCE ON MAINE HISTORY

THE CONFEREES

The Conference was held in Augusta, Maine, on February 13, 1982. Through Governor Joseph E. Brennan's invitation, the Partnership Program and the State Planning Office convened a group of eighty-seven individuals, the vast majority of whom (84 per cent) were involved in higher education in Maine as teachers or researchers at the college level. Some 11 per cent were public administrators (Commissioners, and so forth), and the remainder came from a variety of occupations.

This was clearly not a group representative of the Maine population as a whole. For example, ninety-four per cent of the group had a graduate school education; only six per cent had incomes under $20,000; sixty-eight per cent had incomes over $30,000. Thirty-six per cent derived some significant percentage of their income from other than Maine sources, and only 22 per cent had been lifelong Maine residents. Nearly four-fifths were over forty years of age.

On the other hand, this group had demonstrated its commitment to the state by participation in a variety of Maine public activities over the last five years. Almost three-fifths (fifty-nine per cent) had served on a state board, agency or commission; fourty-four per cent had been active in some aspect of environmental protection. Thirty per cent had been actively engaged in politics.

This, then, was an interested, committed, highly educated, well-informed group of citizens who gathered to discuss where Maine has been since 1940, and where it may be going over the rest of this decade. Their views reflected their experience in Maine, personal background, and socioeconomic status as much as their professional knowledge. But, as one would expect of educators and public servants, the conferees' basic concern was with Maine and with their potential for achieving personal development and economic security. In that sense, the conferees' approach to Maine issues was perhaps more objective than would have been the case with many other groups.

THE PLAN FOR THE CONFERENCE

A small planning group headed by the State Planning Office and the Partnership Program, including representatives of the University of Maine at Orono and the University of Southern Maine, put the Conference together. The group's objectives were to review where the State had been over the past

forty years and to attempt to identify the issues of the eighties against that background. To accomplish this end, papers were commissioned in three basic areas— economic, political, and social development. The principal authors of these papers in turn solicited contributions from others in their respective fields.

A set of discussion questions dérived from the three background papers became the agenda for the Conference. The principal authors summarized their contributions at the Conference's opening plenary session, and participants were polled on their predictions about the coming decade.

CONFERENCE RESULTS

Of the 118 persons invited by Governor Brennan's letter shown in Appendix D, 100 accepted and 87 actually were able to participate in the day long conference.

The agenda (Appendix B) devoted the morning to a review of the three Conference papers which identified trends and issues in the State's economic, social and political development.

The afternoon workshops focused on key issues identified in Appendix A and from a questionnaire based on this workshop discussion agenda. Participants had an opportunity to give oral and written reactions to the assumptions developed in the Working Papers and to suggest other issues or questions facing Maine people.

What follows here is a summary of those responses as illuminated by reports from workshop recorders. The reader should be cautioned that the conferees were forced to make choices, time was short, and many of the questions were quite generalized. Therefore it is the general tenor of the discussion and questionnaire responses rather than specific percentages that carry significance. The following summary is offered with this very important *caveat.*

LEADING ISSUES

The Economy

Participants identified "economic development," defined in a variety of ways, as the leading Maine issue both when they entered the workshops and when they left them. However, there was not a high level of confidence that by 1990 the development issue would be resolved (15%).

In response to a specific question, three-quarters of the participants agreed that economic development will be the leading political issue in Maine during the remainder of this decade, and two-thirds of these conferees held this view with "much confidence."

To the extent that there is evidence for the conferees' pessimism on Maine economic development in this decade, it appeared to be primarily related to the importance of external factors (cost of money, out-of-state control, out-of-state job market for educated Mainers, energy costs, and the like) over which Maine can exert little, if any, control—at least in the short run. This view clearly reflected the "colonial economy" thesis of the background paper on this area. There seemed to be substantial agreement that in any case the State needs to develop a broad-based economic development philosophy, to identify and keep in mind social values which should temper the drive to economic development, and to provide more coordination of economic development activities.

Public Assistance

Several workshops agreed that the continuing importance of economic development is not so much the issue as the form that will take and the degree to which public policy at the state level can shape it. For example, there seemed to be a substantial body of opinion that supported the view that public assistance to individuals, as currently utilized, perpetuates a low-skill, low-wage element of the Maine work force, which finds its principal employment in seasonal resource industries. Others disputed this view, claiming that most of this assistance goes to women with dependent children. Generally, it was felt that the role of women in the work force did not receive enough attention in the Conference Working Papers.

Aid to Business

Several discussions pointed out that public assistance is not limited just to individuals but also extends to business, especially Maine business experiencing difficulties. There seemed to be some agreement that both State-supported public assistance to individuals and to business has contributed to maintenance of the economic *status quo* in the State.

This verdict was regarded with some alarm, since a substantial number of conferees see the world changing at an accelerating rate, with Maine failing to keep pace.

Economic Strategies

As on other economic questions, there was a division between those conferees who favored State support for the natural resource industries, located predominantly in the northern and eastern regions of the State, and those favoring emphasis on manufacturing and high tech in the southern and western areas. But nearly three-fifths of the conferees felt that the structure of the State's economy will not change significantly over the next decade, though the degree of their confidence in this forecast was limited.

Reflecting the high labor component in manufacturing, the conferees appeared to favor adding more value to Maine products; to maintaining as much control over economic activity as possible in Maine; and to stimulating the export of products of land, sea, forest, and factory. Although for years there has been a discussion on the press and elsewhere about the lack of capital as a constraint on Maine economic development, conferees were inclined to think that businessmen's cautions or negative attitudes towards innovation were a more critical factor. In the view of most conferees, traditional ways of doing business are inadequate to meet the challenges of the 1980's.

There was overwhelming support (91%) for the proposition that public policy should continue to encourage Maine resource industries such as forestry, agriculture, fisheries and tourism, and a majority of this large group held this view strongly. However, when it came to a possible trade-off between encouraging this kind of activity as opposed to high technology industry, the consensus dissolved. Only 40 per cent of the respondents supported priority attention to the resource industries, and even then, only half of them had "much" confidence in this position. The disparity between the strong support for the traditional resource industries as objects for public policy and the much weaker support for giving them appeared to be related to the majority's (58%) view that the traditional Maine industries are unlikely to contribute significantly to job creation in this decade.

FACTORS CONTRIBUTING TO ECONOMIC DEVELOPMENT

Energy

There was significant consensus on the proposition that the transition to renewable sources of energy is critical to Maine's future (80%), agreement that it can be accelerated (77%), and that public policy can encourage this acceleration (77%).

Employment and Training

There was strong sentiment (70%) that State employment and training policy is not adequate to meet an anticipated shortage of skilled labor in the 1980's. Nearly half (49%) of the group supported private sector responsibility for employment and training development and did so with "much" confidence.

Inmigration

Given the conferees' view of the economy, one might expect them to have anticipated a slowdown or reversal of the inmigration that has characterized the State in the past decade. Some 59 per cent of the respondents expected inmigration to continue, but only 26 per cent had "much" confidence in this forecast.

Public and Private Sector Roles

To the extent that Maine economic development was expected to take place in the 1980's, half the respondents had "some" or "much" confidence that national policies would facilitate it. A slightly higher percentage (57%) thought private and public sector role changes during the 1980's would facilitate economic development in Maine. Presumably, this group believed that Federal initiatives will, in part at least, be replaced by private ones. Some feared that the "swapping of responsibilities" back and forth between the public and private sectors would produce slow-to-respond public policies that might actually inhibit economic development.

In summary, conferees saw economic development as a persistent problem for Maine, taking many differing forms. While probably not susceptible to solution primarily at the state level, it requires careful consideration whether or not public policies tend to perpetuate the *status quo* or encourage innovation, and whether or not publicly-supported education can be geared to the technological requirements of a new era without sacrificing a solid preparation for good citizenship. Finally it raises basic questions about how to set priorities between encouraging traditional natural resource industries and aiding high technology ones. There were no answers to such questions, but the importance of bringing them forward for public debate was overwhelmingly stressed.

LIFESTYLE

"Lifestyle" is an ambiguous term, but the conferees generally seemed to interpret it to mean the quality of life for individuals in Maine and what it is likely to become. There was agreement that public policy does affect lifestyle, both by positive action or by failure to act. Some 60 per cent of respondents felt that the state should employ public policy to affect life style. This feeling was particularly strong as to senior citizens. At least one workshop, however, felt that government should not set out deliberately to affect lifestyle, but that it should be conscious of the indirect effects of public policy decisions in areas such as the property tax.

Major concern was expressed about the effects of public policy on family, and, more particularly, attention was called to the need for more recognition

of the role of women and minorities in the society and in the workforce. Inflation, high levels of unemployment, and slow economic growth were all seen as requiring women to take a more active role in the workplace to help support their families. But it was anticipated that these same factors would preclude their moving up career ladders. Maine women were seen as likely to be "stuck" in low-wage, low-skill jobs.

How Maine will house its families was a matter of obvious concern to members of the Conference. Some 70 percent of those answering this question felt that Maine's stock of housing and its financial accessibility will become increasingly a problem in the remainder of this decade. Given low incomes and high interest rates, ownership of a stand-apart, single-family home may be a thing of the past for most Maine families. However, some optimism was expressed about the possibilities for new types of housing facilitated by technological progress and innovative financing packages.

The conferees expressed even greater concern about the cost and availability of health care for Maine citizens in the 1980's. Over 80 per cent of those answering this question saw this area as a problem and most of them held this view strongly. The impact of health care costs on Maine's aging population was a particular concern, especially since those costs reflect national cost standards whereas per capita Maine personal income is substantially below the national average.

Educational and Cultural Services

Given the composition of the Conference membership it is perhaps not surprising that some 80 per cent favored increased State support of education and cultural services. Three-quarters of those answering this question saw higher education, specifically, becoming more important in this decade. This view was, among other things, tied to the belief that economic development is closely related to education. But there was a belief, also strongly held, that the State should support the performing arts and that professional artists, musicians, and performers would also contribute significantly to the economy.

THE ROLE OF STATE GOVERNMENT UNDER THE NEW FEDERALISM

Programs

Maine over the past decade has experienced a substantial inflow of federal funds for a variety of programs. The Reagan administration's New Federalism forecasts for a number of these programs' elimination or sharply reduced funding.

Among the programs about which there was substantial agreement were those providing funds for replacing and repairing public facilities like bridges, sewers, highways and the like. The conferees (86%) agreed that Maine could not carry this burden without Federal help.

Institutional Arrangements

Most of the conferees seemed to feel that in the interest of promoting efficiency there will be more inter-community cooperation in this decade. Less than half, however, saw the integration of school budgets into municipal budgets as a likely development. They did anticipate increased professionalism in areas such as the court system, nursing, and the Legislature, and they believed that such developments would be encouraged by public policies and would in turn impact those policies.

Political Parties

The background paper on political developments suggested that in Maine political parties have been declining in importance. Conferees asked about this for the 1980's were quite sure (73%) that the two-party system would continue but that candidate image (as opposed to issues) would be more heavily stressed (78%). While some thought party decline might continue, they did not hold this view with much confidence; they were more confident (55%) that such a decline would have an adverse effect on issues critical to Maine's future.

CONCLUSION

There were "bulls" and "bears" on most issues and a wide diversity of concerns. Reading between the lines, however, there did appear to be some underlying, implicit agreement on fundamentals.

1. There is a need in this new era for more effective and continuing cooperation between the private sector, the University system, and government for the benefit of Maine.
2. There is no real replacement for Federal dollars. This is going to force hard choices on the State with social services likely to suffer.
3. There is an infrastructure crisis developing, and the fact of fiscal distress will force new departures in government at the state and local levels.
4. Although the structure of the Maine economy did not change dramatically in the past 40 years, change is cumulative and there are indications that the technological revolution will create structural changes of major importance in this decade. An unfortunate corollary of this development, should it occur, would be a separation of its beneficiaries into the rich

and poor, further accentuating inequities that exist under the present economic structure.

5. There is a real problem of getting issues such as those discussed at the Conference before a wider audience of Maine people and stimulating informed debate on them. Only in this way can we expect to develop strategies that will enable us to meet the challenges of the 1980's insofar as State action can cope with them.

In many respects the conference left its participants with a series of "How to" questions:

1. How to ration shortage equitably.
2. How to stimulate debate and involve a broad public.
3. How to define the roles of the private economic sector, the University and State government in a range of activities.
4. How to stimulate economic growth and balance it properly with environmental protection.
5. How to adapt to technological change.

APPENDIX F

MAINE EMPLOYMENT 1970–1990

Sector	Industries included	1970	1980	1990	
				Low	High
Natural Resources	Fishing[1]	4,000	6,000	6,000	6,000
	Agriculture[2]	20,000	21,000	19,000	22,000
	Food processing	11,500	10,300	9,300	9,500
	Paper	17,750	18,100	18,300	18,800
	Lumber and Wood	13,800	13,600	15,000	15,000
	Furniture	1,000	1,000	1,200	1,200
	Misc. mfg.	650	900	700	800
	Subtotal	68,850	71,600	69,500	73,300
Construction	Construction[3]	18,600	19,900	19,300	21,300
	Stone, clay and glass	1,150	1,200	1,200	1,200
	Subtotal	19,750	21,100	20,500	22,500
Clothing	Textiles	10,900	8,200	8,700	8,900
	Apparel	3,350	4,700	5,5[illegible]	6,100
	Leather	25,800	20,600	21,400	23,400
	Subtotal	40,050	33,500	35,600	38,300
Metals and Electronics	Primary metals	1,000	400	400	500
	Fabricated metals	3,700	4,400	5,400	5,400
	Nonelectric machinery	2,050	4,400	7,100	7,600
	Transportation equipment	5,000	8,200	10,200	11,700
	Electric and electronics	5,000	7,700	9,800	10,900
	Instruments	250	900	1,500	1,500
	Subtotal	17,000	26,900	34,400	37,500
Other Manufacturing	Printing	2,900	3,600	4,300	4,500
	Rubber and plastics	2,900	3,900	3,900	4,100
	Chemicals	1,300	1,400	1,800	1,800
	Subtotal	7,100	8,900	10,000	10,400
Government	State and local	50,900	63,300	62,000	66,000
	Federal and military[4]	32,900	33,500	34,200	34,200
	Subtotal	83,800	96,800	96,200	100,200

Sector	Industries included	1970	1980	1990	
Trade and Services	Transport, communications, utilities	17,250	18,200	19,000	20,900
	Wholesale trade	14,350	18,700	21,700	23,400
	Retail trade	52,450	70,100	75,400	80,400
	Finance, insurance and real estate	13,300	17,200	20,900	22,400
	Services	59,900	89,100	114,400	120,400
	Subtotal	157,250	213,300	251,400	267,500
Nonfarm and	Nonfish Proprietors	32,450	41,400	51,600	51,600
Total Employment		424,800	512,600	570,000	600,000
Total Labor Force		448,600	553,900	606,000	636,000
Total Population		994,000	1,129,000	1,216,000	1,266,000

[1]Estimated
[2]Includes farm proprietors, farm wage and salary employees, and agricultural services
[3]Includes mining and petroleum
[4]Includes Kittery Naval Shipyard

Source: Maine State Planning Office. *Maine Economic Policy Analysis Model.*

APPENDIX G

Maine Forecasting Advisory Committee

Augusta South Parish Congregational Church
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G.H. Bass and Company
Jane Begert, Personnel Manager

Bath Iron Works
Fred McCann, Controller-Budgeting

Bureau of Taxation
Edgar Miller, Economist

Central Computer Services
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Maine Commission for Women
Jacqueline Potter, Director

National Center for Economic Alternatives
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Pine Tree Legal Assistance
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Central Support

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Lorraine Lessard, State Planning Office
Jacki Rush, State Planning Office
Nellie Stevens, State Planning Office
Nancy Valley, State Planning Office

Appendix H

FORECASTING AGENDA

The Maine Economy: A Forecast to 1990
and
Maine: Fifty Years of Change, 1940-1990

Arnold Howard Room
Augusta Civic Center
Wednesday, August 4, 1982

9:00- 9:30	Registration and distribution of materials
9:30-10:00	Coffee and doughnuts
10:00-10:10	Greetings to attendees, contributors: government, business, higher education Jane Weed, Executive Director, Maine SETC
10:10-10:30	Introduction: What the project set out to do. How we did it. Wilfred Richard, Chair, Maine Forecasting Advisory Committee and Co-editor of *Maine: Fifty Years of Change*
10:30-11:00	A summary: What we learned. Charles Lawton, Director, Economics Division, State Planning Office Allen Pease, Director, University/State Government Partnership Program, and Co-editor of *Maine: Fifty Years of Change*
11:00-12:00	What we learned: View from the Private Sector Natural Resources: Paul McCann, Manager, Public Affairs, Great Northern Paper Company Finance & Investment: Robert Masterton, President of Maine Savings Bank Energy: Darrel Quimby, Staff Assistant, Central Maine Power Company

12:00- 1:00	Break for lunch—Smorgasbord
1:00- 2:00	What we learned: View from Government
	Labor: Ray Fongemie, Director, Division of Economic Analysis and Research
	The Economy: Lloyd Irland, State Economist, State Planning Office
	Human Resources: John Dorrer, Director, New England Institute for Human Resource Planning and Management
2:00- 3:00	What we learned: View from Academia
	Political: Albert Mavrinac, Professor, and Chair, Department of Government, Colby College
	Social: Marilyn Mavrinac, Assistant Professor, Department of Education, Colby College
	Economic: Robert Goettel, Director, Center for Research and Advanced Study, University of Southern Maine
3:00- 4:00	Wrap Up: What We Learned, What Needs To Be Done: Maine's Future
	Nate Bowditch, Director, Maine Development Foundation
	Arthur Johnson, Bird Professor of History, and Director, Balanced Growth Project
	Ed Miller, Economist, Bureau of Taxation, and President, New England Economic Project